

THE FARM & RANCH REVIEW

Rackham, Stanley Jy 08



VOL. 3

CALGARY, ALTA., CANADA, SEPTEMBER, 1907

No. 8

FREE PREMIUMS

On NOVEMBER 1st we will issue an artistic PREMIUM CATALOGUE

Begin to Save Ends from GOLDEN WEST SOAP cartons now



THE RICH FIND IT MOST SATISFACTORY

THE POOR MOST ECONOMICAL

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Ask for GOLDEN WEST SOAP and INSIST UPON getting IT

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Dealers in and Manufacturers of
MARBLE AND GRANITE MONUMENTS
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Mantelpieces, Butchers' Slabs, Imposing Stones,
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PRICES THE LOWEST FOR BEST
MATERIAL AND WORKMANSHIP



The Largest Monumental Works in the Western Provinces

The SOMERVILLE COMPANY, Proprietors

N.B.—No connection whatever with any Eastern firm.

THE IMPLEMENT SITUATION.

Dealers in agricultural implements, farm wagons, manure spreaders and other kindred lines, will soon be called upon to inform their customers of an advance in price. In fact, many manufacturers have already made an advance, and the consumer may as well prepare for it as it is inevitable.

Implement manufacturers have purchased for their work over 100,000 tons of iron and steel bars and shapes. The price paid for next year's deliveries is about 10 per cent. higher than the contracts that were made a year ago. Pig iron, cold rolled shafting, bolts, nuts, washers, screws, and in fact, almost every item going into the manufacture of the implement line have advanced from 10 to 15 per cent. for 1908 deliveries. Lumber, particularly oak and hickory, have advanced steadily in price for the past few years. The average advance for 1908 over 1907 will not be far from \$10.00 per thousand feet. Wagon rims and spokes have advanced for 1908 from 10 to 20 per cent.

Manufacturers in general feel that they are entitled to better prices; in fact, it is impossible for the manufacturers to continue selling their product at anything like the present prices. Implements have not kept pace with the advance in raw materials. The high prices of raw material and the low prices that implements have been sold for have put the manufacturer where he has not enjoyed any part of the general prosperity of the country. The raw material man and the consumer have reaped the full benefit.

The farmer has enjoyed the highest figure he has ever secured for his stock in trade. In these times of prosperity when all of the farm products are selling at high prices, it is quite necessary that the farmer should have up-to-date machinery so he may reduce the cost of production to a minimum and raise the largest crops possible. The farmer who buys an implement in the latter part of 1907 and during 1908 at an advance of from

10 to 15 per cent. may rest assured that the advance is legitimate.

There appears to be no prospects of any slump in the market on raw materials. The situation is rather peculiar along this line. The great production has made it necessary for the manufacturer to buy his raw material from six months to a year in advance in order that he may be sure to have them at the time they are required. Therefore, the manufacturer has been obliged to place his orders for 1908 consumption, and having bought it has put the matter in position where it looks as if the advance in price must hold for at least eighteen months, and when considering everything it is nothing but justice that the farmer should pay the slight advance which he is asked to pay, as the prices of implements are only slightly above the prices asked when wheat was selling from 55 to 60 cents per bushel.

RELIABLE IN EMERGENCIES.

Mr. L. Struther, 92 Crescent Road, Toronto, Ont., Canada, writes under date of March 26th, 1907: "I have been using Absorbine for the past year or more, and find it everything that can be desired for soft swellings, such as wind puffs, capped hocks, thoroughpins and strains." Many customers write of the satisfactory results Absorbine give in removing blemishes, curing lameness, etc. You try a bottle. Price \$2 at druggists or delivered. Mfg'd by W. F. Young, P.D.F., 122 Monmouth St., Springfield, Mass. Canadian agents, Lyman, Sons & Co., Montreal.

Some people have lots of fun playing to the galleries of their own self-esteem.

The man who owns enough of this world's goods to keep him from dirt, debt and hunger, has a thousand chances of avoiding evil against the one of the man whom the demon of discouragement drags through depths from which it is almost impossible to escape without severe demoralization of body, mind and spirit.

A RELIABLE FARM POWER MAKES AND SAVES MONEY.

THESE are days of large operations on the farm. Some sort of power has become a necessity.

There is almost an endless array of uses to which the power can be put. Every season, in fact almost every day in the year, the farmer will have use for it.

And when the power is once on the farm, he soon learns, if he did not know it before, that he can do things easier, more quickly and more economically than he ever did before.

But the farm power must be simple and dependable and as nearly self-operating as possible because the farmer is not expected to be an expert machinist.

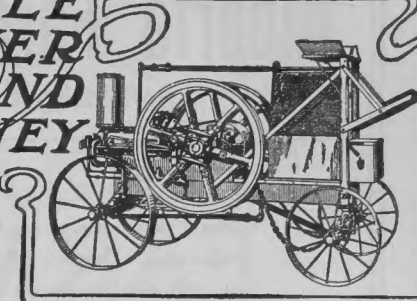
I. H. C. Gasoline Engines

are made to meet these requirements in the fullest manner. Every engine carries with it the highest assurance a farmer can have of satisfactory service and right working.

Whether you purchase the engine here shown or one of our various other styles and sizes of engines, you know you are getting an engine that is perfectly adapted to the use intended.

WESTERN CANADIAN BRANCHES: Calgary, Regina, Winnipeg.

INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, U.S.A.
(Incorporated)



You know that the engine is scientifically built on correct mechanical principles.

You know that it is the product of workmen of highest skill operating with best procurable materials.

You know that your engine has behind it the reputation and guarantee of a great manufacturing institution whose sole business is the making of machines for farm use.

"Simplicity and Efficiency" is our motto in building these farm engines. Every one must do its part toward sustaining the reputation of the I. H. C. works.

I. H. C. engines are made—

Vertical, in 2 and 3-Horse Power
Horizontal, both Stationary
and Portable, in 4, 6, 8, 10, 12, 15
and 20-Horse Power.

Call on the International local agent and take the matter up with him or write nearest branch house for catalog and colored hanger illustrating and describing these engines.

The Empire Proves Its Claims

The cream separator of Quality—Quality in work and quality in construction—is the

Improved Frictionless

Empire Cream Separator

In construction it is admittedly the simplest in principle. Its bowl is the lightest and turns the most easily.

It is free of all complicated parts and is most easily washed.

Its improved bearings make it as nearly absolutely frictionless as it is possible for a machine to be.

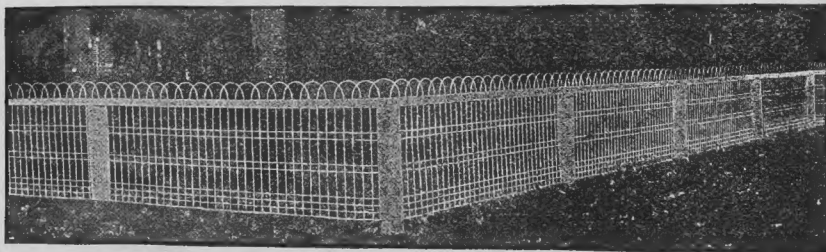
It is so well built and made of such good materials that it outlasts three or four ordinary separators, and very seldom needs repairs.

It gets all the cream and of the highest quality.

In convenience, in economy and in satisfaction, it is emphatically the Separator of Quality.

We Prove These Things. We don't ask you to take mere "claims." We give you proof. Send today for our new catalogue. It is well worth your while to find out about the Empire.

Ontario Wind Engine and Pump
Company, Ltd.,
Winnipeg, Manitoba,
Canada.



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The Acme style you see above costs only from 16 cents a linear foot. Handsome and durable for lawns, parks, cemeteries, etc. Any height or length. Gates to match from \$2.25. Write for catalog, or inspect this ideal fence. From us direct or any Page dealer.

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St. John Winnifred 212

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We have for sale some of the finest hard wheat lands in Western Canada. Our list of improved and unimproved farms is very complete and we can sell you a good farm in any part of the Province. Write us for particulars.

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CALGARY, ALTA.

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You will sure want to come to Vancouver when you sell your place and want to have a

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Prepare the way now before prices of land go any higher. Invest \$250 now and pay \$200 a year, and interest for 5 years. This will procure for you 5 acres of the richest land imaginable, with 165 feet fronting on the Fraser River, on

LULU ISLAND

The Garden of Vancouver and B.C.

The property is five miles from the city, on a good road, and right across the river from a station on the proposed new Electric Car line. The cost of clearing will not average over \$60 an acre. The water front is worth \$10 a foot. We have only ten blocks for sale. Title is perfect, taxes low. Write at once if the above does not please you, we have many other propositions that might. There is really not very much good land in B.C., and we cannot get any more. As the demand continues to increase, values will go up proportionately. There is no surer nor easier way of making money honestly than buying Vancouver acreage NOW

The Central Real Estate Co.,

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Vancouver, B.C.

JOHN LOVE, Secretary

Phone 203

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818 First Street, East CALGARY, ALTA.

PHONE 580

Exceptionally fine ranche—12 miles from Calgary. 900 acres, can nearly all be ploughed, bounded on south side by river Bow. New six roomed house. Stabling for 6 horses. \$15 per acre.

800 acres—8 miles from Calgary. House, Stable and Barns, good well. \$20 per acre.

160 acres—6 miles from Calgary. Fenced and cross fenced. \$25 per acre.

200 acres—4½ miles from City Post Office. Suitable for subdivision. \$100 per acre.

4 acres, 2½ miles from Post Office. A beautiful spot fronting on boulevard and River Bow. \$4,200.

A TALK ON BLANKETS

VERY early in the year, when wools were a great deal cheaper than they are now, we made our contract with one of the foremost mills in Canada. At the time we placed our order, the mills were at their quietest, and as a consequence the goods just opened up show the very best quality of materials and workmanship, which is almost impossible to expect when the looms are rushed; so that we have every confidence in saying that we can show you even better goods and better values than last year—which is saying a good deal. Here are a few of our reliable numbers:

The "Alexandra" Blanket is made from the best grade Canadian Wool, soft and fleecy and warm as Eiderdown. We carry this blanket in 5, 6, 7, 8, 9 and 10 pound weights at \$5.00, \$6.00, \$7.00, \$8.00, \$9.00 and \$10.00 per pair. The name is royal and the goods are in keeping with the name.

Super Wool Blankets—All pure wool, soft fleece, 64x80, finished Pink or Blue borders. Excellent value at, per pair.....\$4.50

White Wool Blankets—Full double bed size 6 pound weight, a good washing blanket eminently suitable for the farm house where grey blankets are not considered desirable, per pair.....\$3.50

Grey Blankets—Full stock 5, 6, 7 and 8 pounds, \$2.25, \$3.25, \$3.75, \$4.25, \$4.75, \$5.25 per pair.

Comforters in every grade.

These are special Mail Order Prices—delivered to your nearest station at these prices.

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LIMITED.

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A strictly Western Company for Western Canadians.

Absolute Security for Payment of Losses.

Full Government Deposit.

Local agents wanted in all unrepresented districts

SPOHN'S DISTEMPER CURE.

Most of our readers are horse owners, and a large percentage of these are interested in remedies for colds and all allied troubles. Spohn's distemper cure is highly spoken of by a great many who have used it, and we give the following testimonial from a high authority in horse circles:—

From President American Trotting Association, Warren Park Farm, home of the sensational performer and sire, Axtell (3) 2.12.

Spohn Medical Co., Terre Haute, Ind., Oct. 24, 1901.

Gentlemen,—For seven years I have used your specific for contagious diseases, to cure distemper, also as a preventive, both with my horses at the track and at the farm, with colts and mares. I never found anything that worked so well as Spohn's Distemper and Cough Cure, in fact it helped me out of the most serious trouble. No stock farm or owner can afford to be without it.—Very truly,

W. P. JAMS.

See advt. in our live stock advertising department.

FARM MOTORS.

Jamestown, Va., Aug. 12.—The passing of the horse, the mule, the ox, as indispensable factors in the operations of modern farming, is foreshadowed in the exhibit of the International Harvester Company at the Exposition now in progress here. Here is shown a great variety of motors, stationary and portable, by which great labor-saving machines are operated, and for performing many functions of the horse, barn and field that have always been associated with toil and drudgery for both man and beast. By pressing a button or turning a valve, the up-to-date farmer can plow his land, harrow it, sow his seed, cultivate, harvest and thresh his crop, saw wood for his kitchen, pump water for domestic or irrigation purposes, cut ensilage, shell and grind corn, separate cream, churn butter, light his buildings by electricity and do scores of other things that, while saving labor and money, make life pleasanter for himself and his household. Power is now so easily and inexpensively applied that the demand for farm motors is as important as that for the machinery equipment. The question is not "will a gasoline motor meet my needs," but "which will best serve my purpose?"

The gasoline engine has reached the practical stage; it is now a necessity. The economy of its direct power is undoubted. Motors shown in the exhibit have been subjected to all tests, and are found ever ready and effective at a minimum of expense. They require no engineer, no fireman, no far-fetched water supply. They do require a supply of gasoline—less than a pint per hour per horse power. A 10 horse power motor running at full strength consumes about a gallon an hour. No special operator is needed. When ready, the farmer turns a valve, gives the fly wheel a revolution or two by hand, and is then free to attend to other work; the motor will run itself till he closes the valve again.

There is shown in this exhibit a vertical motor, mounted on a substantial truck, adapted to use on rough roads, that may be drawn by hand or by horse to any part of the fields or wood lot. To it is belted a circular saw, whereby limbs and trunks of trees can be readily converted into firewood on the spot where the tree is felled. By a simple appliance the saw may be made to do the work of felling the tree. This motor can also be attached to a thresher in the field or made to cut and then haul ice from the river or pond for storage against the summer. It can be wheeled to the dairy and made to operate the churn or separator. Its uses are manifold and obvious. Its first cost is small, and

its operation inexpensive. The average running expense may be figured close to one cent per hour per horse power.

So with the stationary motors. By it can heavy threshing or pumping machinery be run as though by the strength of a child. A two horse power motor will operate a dynamo that will supply current for 20 electric lights of 16 candle power each—more than are ordinarily needed at one time in any farmer's house.

And there is no danger connected

with these motors in themselves. The fuel is ordinary stove gasoline, which only becomes dangerous when used in an enclosed room where there is an open light flame. It is never necessary to use a flame about a Harvester Company's motor, as ignition is produced by an electric spark. The gasoline supply should be stored in a tank out of doors, in which case every element of danger is removed. In use the motor emits no smoke, scatters no sparks. The technical knowledge required to operate the motor can be

very quickly acquired by any man or intelligent boy. In case of breakage, any part can be promptly supplied by the nearest dealer. In construction the motor is simplicity itself.

It may be proved, with much certainty, that God intends no man to live in this world without working; but it seems no less evident that He intends every man to be happy in his work. It was written: "In the sweat of thy brow," but was never written: "In the breaking of thy heart."—John

ZENOLEUM

CURES MANGE

THE GREAT LIVE STOCK REMEDY

For Mange, Eczema, Ringworm, Scurvy, Canker, Warbles, Abortion, Calf Cholera, Lice, Ticks, Worms, Footrot, Sores, Wounds :

For Cattle, Horses, Swine, Sheep and Poultry

ZENOLEUM

IS USED AND INDORSED BY

43 Agricultural Colleges

IN CANADA AND THE UNITED STATES
AND THE DOMINION DEPARTMENT OF
AGRICULTURE

EVERY GALLON OF ZENOLEUM GUARANTEED. MONEY
BACK—NO TALK—JUST MONEY, IF NOT SATISFACTORY

ZENOLEUM

VETERINARY ADVISER

Sixty-four pages of valuable information concerning the prevention, treatment and cure of many animal ailments, written in a plain concise style by live stock authorities. Every stock owner should have a copy. POCKET SIZE. FREE IF YOU WRITE.

Zenner Disinfectant Co.

Winnipeg, Man. Calgary, Alta. Regina, Sask., Vancouver and Victoria, B.C.

High-Grade Farm Wagons



GOOD wagons are absolutely necessary on the farm.

Remember that paint may hide a multitude of deficiencies—a lot of poor materials, particularly poor wood stock—and that the well painted but cheap and poorly constructed wagon may not be a bargain at any price. Break-downs are expensive, repairs cause delay, and in the end the cheap wagon will prove a most expensive one. Iron of the best quality; wood stock of desired toughness, thoroughly seasoned, are required for the big loads, rough roads, ruts, slips and slides that try the farm wagon.

The iron and wood must be put together properly to give the greatest durability.

That's not all; this excellence of material and building must be combined with light running qualities to make the completely successful farm wagon.

All these requirements you will find in the International Harvester Company line of farm wagons.

The Weber for more than fifty years has been among the best and most favorably known of America's farm wagons. The most carefully selected and sea-

soned materials with superior construction in every part make it suit every condition of wagon service.

The Columbus is a strong, well constructed and durable wagon, such as will well meet the needs of the great army of farm wagon buyers and users.

The Bettendorf is a new and valuable improvement in wagon construction, the front and rear gears being made entirely of pressed steel; therefore, the axles, bolsters and other gear parts are free from swelling, shrinking, rot, etc. Ideal for hot or dry climates.

They are the only steel constructed farm wagon gears on the market. These wagons are built to last. Almost any wagon can be guaranteed for a year, but the point that should always be considered is **how many years is the wagon likely to do good service?** Think it over. It makes little difference which of these wagons you buy. You will make sure of wagon value and wagon satisfaction in any event. You simply can't buy anything better at any price.

Call on the local agent or write for illustrated pamphlets which fully describe each.

**Weber
Columbus
Bettendorf**

International Harvester Company of America
(Incorporated) Calgary, Alta.

Our Catalogue

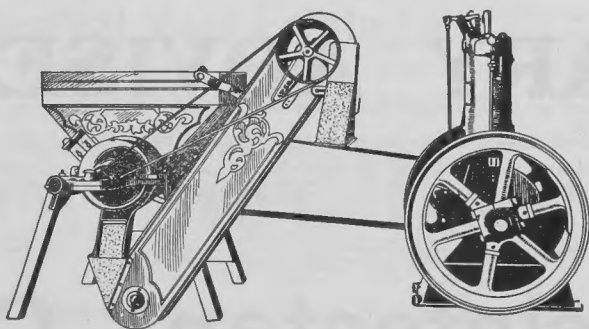
We have just issued a handsome new Calendar giving full information of our school. We should like to send it to you. Drop us a card and ask for catalogue "G." Address the

Central Business College, Winnipeg Man.

F. A. WOOD—PRINCIPALS—WM. HAWKINS

Be Your Own Miller

Saw Your Own Wood



DO YOU KNOW THAT A

"Fairbanks-Morse" Gasoline Engine

is the cheapest form of power for the farm? It will reduce your power expense to the minimum and will give you steady, reliable and economical power for operating your machinery.

Investigate our methods. Our experienced engineers at your service. Cut out the attached advertisement and send to us.

Please send me your free Catalogue
I may want a.....H.P. Gasoline Engine
for.....
Name.....
Town.....
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THE
CANADIAN-FAIRBANKS CO.
LIMITED
92-94 Arthur Street, WINNIPEG, MAN.
Large Stock Carried at Calgary

SASH AND DOORS

We can supply any kind. Our Stock is No. 1. Interior Finish is our specialty. Call or write if you require anything in this line.

Screen Doors and Windows in stock sizes or made to your order. Catalogue and Price List on application.

Western Planing Mills Co.

CALGARY, ALBERTA

In Favor with the Farmer

The question of the cheapness or dearness of a roofing is purely one of comparison, and can only be accurately measured by the **test of service**. Shingles are getting scarce and expensive. Tin corrodes and rusts out too soon. Slate is too heavy and expensive for most farm buildings. Cheap prepared roofings require recoating every year which costs almost as much as the original roof, so that while the first cost may seem cheap time proves they are extremely expensive measured by the **test of service**.



**STRONG
DURABLE**

is cheap in comparison with shingles, costs less at the start, and outlasts shingles several years. In comparison with cheap prepared roofings it seems dear, but measured by the time test—the **test of service**—it is cheaper than the cheapest imitation you can buy and we stand ready to prove this assertion. **Vulcanite Roofing** is coated with a mineral product that will not freeze nor crack in winter, nor crumble and peel off in dry weather; is absolutely water, wind, acid, weather and fire proof. For farm buildings **Vulcanite Roofing** is the favorite of the economical farmer who figures cost by years of service, not by the first cost—who wants to lay a roofing that will stand the wear and tear of time—that resists all the elements and will not require repainting oftener than once in five years. For more particulars as to why it's the most durable ready roofing made, write for our free booklet giving you reasons—it will save you dollars. Ask your dealer, if he does not handle it write to us.

ELLIS & GOGAN, Distributing Agents, Dept. E., Calgary, Canada.



The Most Satisfactory Roofing For Country Houses Is Ruberoid

If you can drive a nail you can apply Ruberoid Roofing.

It will not melt like tar, or corrode or rust like metal.

Ruberoid is put up in convenient rolls, containing nails, tin caps, and cement for seams.

Ruberoid is the original ready to lay roofing. It has stood unequalled for 15 years.

Ruberoid is fire resisting, lightning and weather-proof.

Write us for booklet and samples of Ruberoid and we will tell you who sells it in your neighborhood.

The Standard Paint Company of Canada, Limited,

Board of Trade Building, Montreal, P. Q.
Factories at Lachine Canal, P. Q.



AND GRAIN GROWERS' GAZETTE

DEVOTED TO

GRAIN GROWING : STOCK RAISING : POULTRY : DAIRYING

Beekeeping, Gardening, Forestry, Irrigation, Organized Agriculture, and the Household

WEST OF THE GREAT LAKES.

Vol. 3

CALGARY, ALTA., CANADA, SEPTEMBER, 1907

No. 8

Farm and Ranch Review

Published monthly by

Hammond Lithographing Company, Limited,
CALGARY, ALBERTA, CANADA.

M. D. GEDDES - - EDITOR
J. E. HAMMOND - - MANAGER

The only agricultural paper printed in Canada between
Winnipeg and the Pacific Coast.

SUBSCRIPTIONS:

\$1.00 Per Year in Advance

Should any subscriber fail to receive his paper kindly notify us at once and the matter will receive our best attention.

ADVERTISING RATES:

Write us for new advertising rates and what positions are to be had.

ADVERTISING COPY:

Change of copy should reach us not later than the 10th of the preceding month otherwise advertisements of a specific size contracted to run in consecutive issues will appear unchanged. It pays to change your advertisement frequently.

COMMUNICATIONS:

We gladly receive communications on topics of interest to our readers. These must bear the sender's name and address, which, however need not be published.

PHOTOGRAPHS of farm and ranch scenes, handy contrivances, etc., are solicited for reproduction if suitable. Address all correspondence

FARM AND RANCH REVIEW

Calgary, Alberta, Canada

PREVENTION CHEAPER THAN CURE.

That prevention is cheaper than cure will be readily conceded by every one who has had experience along any line where a cure was sought. It holds good in all medical cases, and the common saying is: Had I only realized the consequence I would not have exposed myself in such a careless way; which, in other words, means that the sufferer would have exercised reasonable care in the preservation of health, and had this been done, with few exceptions a cure would have been unnecessary.

The same reasoning aptly applies to the carelessness of a great many farmers in connection with the weed question. Gross carelessness is the

cause of most of the trouble. We speak from experience, experience gained by active battling with weeds, and we are glad to say that intelligent effort greatly reduces even the worst varieties. However, it is the methods of prevention which we purpose dealing with chiefly in this article.

At present threshing is becoming general, and the careless thresher is responsible for free weed distribution on an exceedingly extensive scale. Our local governments have passed many good laws for the purpose of lessening this evil, yet in many cases these laws are not enforced, simply because the average farmer is careless and does not realize what an immense advantage it would be to the district in which he lives if he made it his duty to see that all threshers within a reasonable radius of his farm were law-abiding citizens in the sense that they live up to the laws relating to threshers at present on our statute books. Farmers should see to it from the standpoint of self-preservation, if from no other, that threshing machines get a reasonable cleaning before starting to operate on their farms, and they should make it their business to see that special care in cleaning be given when the thresher moves from what is known as a dirty farm.

In sections 16 17 and 18 of Alberta's latest Noxious Weed Act, it says:—

"16. Every thresher shall thoroughly clean his machine, both inside and out, immediately after threshing at each setting and before removing the machine, or any part thereof, to another setting."

"17. Every thresher shall clean the grain threshed by him, and when it is delivered to the owner it shall contain not more than 100 seeds of noxious weeds, other than wild oats, in one thousand of grain, and all screenings containing seeds of noxious weeds shall be destroyed by the own-

er within five days after it is threshed, or removed in closely woven and securely tied sacks."

"18. Every thresher shall display in a prominent place upon his machine a card containing this and the two preceding clauses, which card shall be furnished free upon application to the department."

Elsewhere in the Act it says, regarding screenings from the threshing machine, that any inspector finding screenings containing noxious weed seeds, may notify the owner to burn the screenings within ten days or fence the same with a legal fence.

On no consideration allow stock access to these piles of screenings, for if you do you are sowing weed seeds broadcast over your farm, and your neighbors' also in unfenced districts, through the channel of undigested droppings, and all farmers who give it any thought realize that a very large percentage of all small seeds eaten by cattle and horses pass through them with the vitality of the seed unimpaired.

If these seed piles contain what you consider a sufficient amount of feed, whether in the form of small or broken grain or weed seeds of feeding value, and you wish to save it for that purpose, see that you use good, closely woven sacks, tying them securely, and before feeding the seeds be sure their germinating qualities are destroyed, unless you purpose feeding sheep. Sheep have such an elaborate grinding apparatus that the seeds cannot get through and grow.

The clause which refers to every thresher so cleaning grain that "it shall not contain more than 100 seeds of noxious weeds, other than wild oats, in one thousand of grain," is one that cannot be carried out to the letter, but the principle is good, and the idea is to have a fixed standard so that weed inspectors will have something definite to act upon.

It behoves farmers to impress threshers with the necessity of using the best up-to-date cleaning machinery in connection with their threshing machines. There are grain cleaners on the market now that can be easily attached to any make of threshing machine, and we have seen some of them at work and were highly pleased with the results.

Winter wheat is at present being sown in large quantities in portions of the West. See that the seed used is clean. It pays well to run your seed grain carefully through the best fanning mill you can get, using considerable wind, for the double reason that by doing so you reduce the weed content and increase the average standard of the kernels sown.

If you have a fanning mill that will allow the heaviest grain to run into one pile, and the slightly lighter, which has not dropped off the sieve in quite such a perpendicular line, owing to its lack of weight, into another pile, or drawer, you can select an A1 quality of seed. Of course this can also be done by using a coarse enough screen in the bottom shoe of the fanning mill, so that all but the very largest kernels will go through into the market grain. The best authorities on this question say that from 5 to 20 per cent. of the best of all grain raised should only be used for seed.

WOLF BOUNTIES.

Alberta sheep breeders, poultry raisers and live stock men in general, as well as the game wardens of the province from time to time, have used their influence in endeavoring to have the Alberta Government assist in exterminating wolves, and recently an order in council was passed which should prove beneficial to a considerable portion of the province. The order in council provides for the payment of bounties for wolves killed in

that portion of the province lying north of township 26 and south of the 55th parallel of latitude. North of latitude 55 a special bounty of \$10 for timber wolves is paid, and south of township 27 the Western Stock Growers' Association pay a bounty, and for these reasons the government confined its area to that already mentioned. The regulations read as follows:—

1—For the purpose of these regulations the term "prairie wolf" shall mean the coyote or brush wolf; "timber wolf" shall mean the large wolf known as the gray wolf, and "wolf pup" shall mean the immature young of the prairie or timber wolf up to the first of August in any year.

2—The bounty on prairie wolves shall be one dollar per head.

3—The bounty on timber wolves shall be Five Dollars per head.

4—The bounty on wolf pups shall be One Dollar per head.

5—For the purpose of these rules and regulations and stock inspectors appointed under the provisions of the Stock Inspection Ordinance shall be wolf bounty inspectors.

6—The pelt, including the head of each wolf upon which bounty is claimed, must be produced intact to the inspector by the person claiming the bounty. Every person applying for bounty shall furnish the inspector with an affidavit to the effect that the animal upon which bounty is claimed has been killed inside the province north of township 26 and south of the 55th parallel of latitude.

7—Upon the production to him of the pelt of any wolf the inspector shall split both ears from tip to base.

8—No bounty shall be paid under these regulations on any wolf killed prior to the first day of July, 1907.

Copies of these regulations are being distributed by the minister of agriculture and may be obtained by applying to the department of agriculture, Edmonton.

CREATING A BETTER HERITAGE.

A new order of civilization is subtly stealing upon us. Railways are becoming arteries and veins leading to remotest sections and the city is the heart. The difference between city and country life is no longer a difference in kind but only in degree.

Large commercial centres, densely populated, are rapidly springing up throughout our land, and yet it is not fifty years since most of the people lived by farming the men making their own sleds, shingles, axe handles, scythes, brooms, ox bows, bread troughs and mortars; the women carding, spinning, braiding, binding and dyeing. They sat around great fireplaces with hanging crane, fire-dogs and a spit turned by hand or by clockwork; they made their own tallow candles and used, even on festive occasions, wooden blocks or raw potatoes for candlesticks; they ate from pewter kept bright by the wild scouring rush; they doctored their own diseases by a hundred and one different wild herbs gathered near

VALUED OPINIONS REGARDING ALBERTA'S PROPOSED AGRICULTURAL COLLEGE.

Dr. Jas. Mills, the man who for 25 years was President of the Ontario Agricultural College, and whose influence had the greatest weight in the upbuilding of that institution, which stands out so boldly for all that is best in agriculture, and consequently is recognized as one of the leading Agricultural Colleges in the world, has sent us his opinion regarding the establishment of Alberta's proposed Agricultural College.

We believe too great stress cannot be attached to his opinion. It embodies 25 years of intelligent research and hard study regarding all matters pertaining to the welfare of agriculture in general, and the Agricultural College in particular.

Those whose positions give them authority regarding Alberta's proposed Agricultural College, and whose views may differ from the doctor's, will do well to give the matter fuller consideration before opposing the policy which he considers best.

This is what he says:—

"In my opinion, the best policy is to make the Agricultural College a separate and distinct institution, place it under the Department of Agriculture, and have it affiliated with the Provincial University. I think the history of Agricultural Colleges on this continent and elsewhere abundantly proves the correctness of this opinion.

"JAS. MILLS."

The editor of The Homestead, Des Moines, Iowa, a graduate of the Ontario Agricultural College, in writing us recently on this subject, says:—

"You are working along right lines, and I congratulate you on the position you have taken on the Agricultural College question. There is altogether too much silk-stockingism around the average university to create a healthy agricultural atmosphere. Agricultural education is such a comparatively new thing that it must be fostered under conditions that are the most congenial, and my experience is, after examining the principal educational institutions of the United States, that the proper conditions are only found when an Agricultural College stands alone on its merits, fights its own battles, and is regulated by its own board of trustees.

"JAS. ATKINSON."

Mr. W. C. McKillican, Alberta and B.C. representative of the Seed Branch of the Dominion Department of Agriculture, and a graduate of the Ontario Agricultural College, has also given this important matter considerable study, and sums up his opinion of the matter as follows:—

"Regarding the proper status of the proposed Alberta Agricultural College, my firm conviction is that to be in location and control, and that it should be under the control of the Provincial Department of Agriculture and successful it must be separate from the University, both entirely untrammelled by any outside influence.

"W. C. MCKILLICAN."

Note the similarity of opinion of Agricultural College trained men. Although of very different vocations, with agricultural experience gained in several countries, yet they are a unit in endorsing the "Review's" policy regarding Alberta's proposed Agricultural College.

home and put up for the winter. Soap was made at home, so was apple butter, cheese, pearl-ash, birch vinegar, cider, beer and baskets. Each farm was a factory of odds and ends—a village store in itself, a laboratory of applied mechanics.

That was a period of sturdy individualism. It developed men and women capable of withstanding hardship and successfully battling against great odds. The strenuous city life of today tends to develop business ability with a leaning towards extreme shrewdness, too often at the expense of integrity, and the trend of the times leans towards senseless extravagance, so that the old life with many lives only in tender memories, and although every process on the farm has been revolutionized by science or mechanical invention, yet we are not ready to admit that the change, in its entirety, has been for the betterment of civilization.

Are our present conditions any more joyful or fraught with greater profit than those of 50 years ago? are questions it is wise for us to ponder over at times.

What the next fifty years will show depends in a measure on our actions to-day. If we are broad enough we will make use of the best that past ages have given us. That is our heritage, and to live up to our light is a duty we owe posterity.

Judging by appearances, this phase of the question is greatly overlooked by the average Western farmer to-day.

The main idea seems to be how much money can I get from this farm in a few years so that I can then retire and live a life of ease. Higher motives are necessary to build up the strong nation Canada is so well fitted to become. Loose methods of farming go hand in hand with loose methods in all other matters over which that farmer has control. He, unintentionally no doubt, but nevertheless surely, will incorporate that idea into the very make-up of his children. Children are great copiers, and they seem born with great insight, so as a rule they judge human nature more thoroughly than they are given credit. Before you realize it, if you are a father and a farmer of a rather shiftless type, you will be raising a family almost certain to walk in your footsteps.

Make an honest endeavor to bring up sturdy, independent children, and to do so you must be thorough in your work, straightforward in your dealings, and consistent in your speech.

By doing this you will be "creating a better heritage," and your footprints on the sands of time will have been of much benefit in many ways to future generations.

ALLEGED LUMBER COMBINE.

It is to be hoped that the alleged lumber combine which is being investigated at present by the Alberta Government, will be prosecuted to a definite conclusion.

There is no getting away from the fact that the price of lumber, and in

truth all building material, is exceedingly high at present, and anything that can be done to cheapen these products to the consumer will be of great material benefit to the upbuilding of the West.

Appearances indicate that there is some form of conspiracy which is placing a restraint on trade, so we sincerely trust that, seeing the Alberta Government has "placed its hands on the plow," that it will sift this exceedingly important matter to its last finality.

CARE OF THE DAIRY COW.

The season of the year has again arrived when dairy cows require more attention than is usually given them. The shrewd dairyman does not require to be told that it is an exceedingly paying investment to shelter his cows from the cold rains and frosty nights of autumn, and also to supplement the pasturage, which at best is getting quite bare at this season, by a liberal allowance of green feed.

In many localities there has been considerable late grain injured by frost this season. Where dairy cows are kept this can all, if properly saved, be converted into as much cash through the channel of the cow as would be received from it if threshed and marketed in the ordinary way.

Those who have not dairy cows and have grain that can be utilized best as green feed, should make provision for feeding steers.

Through either of these ways good returns can be got for damaged grain.

Reverting to the dairy cow, we wish to say that a fairly liberal fall feeding, coupled with comfortable quarters when needed, makes it possible for your cows to continue their milk flow well into the winter; while being forced to remain shivering or go on short rations during early fall means a considerable shrinkage not alone for the time being, but even liberal feeding and comfortable quarters later will not fully regain what has been lost.

The cow is, as it were, a machine working for your interest, and without proper care cannot pay you the dividends she otherwise would.

ALBERTA'S GOVERNMENT TELEPHONE LINES.

The Alberta Government, and especially the Minister of Public Works, deserves to be complimented upon their telephone policy and the manner in which it is being carried out. By the end of the present season it is expected that almost 500 miles of government telephone lines will have been constructed throughout the province. In addition to trunk lines some twelve or fifteen exchanges will have been installed. Those who have made a close study of this matter claim that during the present season the government will have built in the neighborhood of 150 miles more long-distance telephone lines than the Bell Telephone Company did during the past ten years.

It is no wonder then that so many of the inhabitants of the smaller towns and outlying districts are loud in their praises of the Department of Public Works, and especially its head, the Hon. W. H. Cushing.

HOW ABOUT YOUR WINTER'S FUEL.

As winter is drawing near we again remind our readers who live in districts that depend upon its fuel supply being hauled by the railways to store up a supply as quickly as possible if they have not already done so. A great many have already made provision along this line, and the more who can be urged to do so early the better it will be for all concerned. Remember "procrastination is the thief of time," and in this case if you keep putting off this important matter it may mean discomfort for you and your family later on.

Take our advice and have your fuel supply secure.

THE PRICE OF FLOUR.

There is no denying the fact that the price of flour has advanced exceedingly during the last few months. Wheat has gone up also, yet the ratio in the advances of these commodities is out of all proportion. In a recent editorial the Winnipeg Tribune has gone into this question very thoroughly, and the following is what it says:—

"On May 28 the millers of Western Canada, with one accord, advanced the price of flour 20 cents a barrel.

"On August 31 the millers of Western Canada, with one accord, advanced the price of flour 20 cents a barrel.

"On September 4, the millers of Western Canada, with one accord, advanced the price of flour 20 cents a barrel.

"Thus, in a little more than three months, the millers of Western Canada, acting in apparent harmony of a perfect type, have advanced the price of flour 60 cents a barrel, or 12 per cent. on one grade, about 14 per cent. on another, about 17½ per cent. on another, and a little more than 22 per cent. on the fourth grade.

"Now, let us see what there is to justify these remarkable advances, which have caused and will cause increases in the prices that every citizen must pay for bread.

"It is claimed, of course—and reasonably claimed—that the price of flour is based on the price of wheat. Well, if flour is based ENTIRELY on the price of wheat, we have only to look up the price of wheat before May 28 and on September 4, to see whether or not the advances in the price of wheat have been such as justify the adding of 60 cents a barrel to the price of flour.

"On May 20 the price of October wheat—which, it is claimed, rules the present price of flour—was quoted on the Winnipeg Grain Exchange as 93½.

"Between May 20 and September 5, therefore, October wheat advanced

6¼ cents a bushel, or about 6½ per cent.

"Between the same dates—May 20 and September 5—the prices of flour—said to be based on the price of wheat—advanced 12 per cent., 14 per cent., 17½ per cent., and 22 per cent., according to the grades. In other words, while October wheat advanced about 6½ per cent., flour advanced an average percentage of about 16.

"Where is the justification for this enormous increase in the cost of the most necessary food to be found in the difference between the wheat prices of three months ago and the wheat prices of to-day?

"It can not be found—as the above figures conclusively prove.

"But it is not even necessary to understand or to deal in figures to see that there is something radically wrong with these sudden jumps in flour prices that take place every little while.

"Look at the number of flour mills we have in Western Canada.

"Each of these mills is supposed to be out for as much business as it can get.

"All these mills are supposed to be keen competitors, trying to sell at the lowest prices at which a profitable business can be conducted, that trade may not be lost to others.

"This is what is SUPPOSED, we say—and what do we find?

"We find that, on May 28, the price of flour was simultaneously advanced 20 cents a barrel.

"How could all the mills suddenly conceive the idea of making this advance, if there was no consultation or arrangement between them?

"Are the managers mind readers? Can one tell just what the others are thinking at any given time?

"On August 31, another advance of 20 cents a barrel was made by all the mills—at exactly the same time.

"Was this more mind-reading?

"On September 4, a third advance of 20 cents a barrel was made by all the mills, at the same moment.

"Spiritualism? Perhaps—but the average intelligent citizen will not have to appeal to occult science to furnish him with a satisfactory explanation of these phenomena!

"These advances in the price of flour are but examples of what is going on all through this country. Everyone who controls the necessities of life is "cinching" everything in sight. Winnipeg is being injured ten times as much by this sort of thing as it has been or ever could be by shortage of money or any other drawback—for it is being made so expensive to live in that it is almost impossible for the man on small salary—the man who is the main stay of the city—to make ends meet.

"This sort of thing must be stopped—and WILL be stopped—if not by drastic process, then by the inevitable law that punishes the man who cannot wait for the goose to lay its golden eggs, one at a time.

"With the Fort William price of wheat 99 cents a bushel, flour should sell in Winnipeg for at least 75 cents a barrel less than the price for which it sells now—and even then the mill

ers would make a handsome profit.

"But no, the goose must be killed, before the men who collect the eggs will be satisfied—and it WILL be killed, in all sober earnest, unless someone interferes in time to prevent the slaughter."

THE ANTI-JAPANESE SITUATION.

The deplorable anti-Japanese riots which recently took place in Vancouver cannot but be regarded by all right-thinking people as a disgrace to all Canada, and especially our Pacific metropolis. Allowing that in mediaeval times recourse to mob violence may have been necessary to help right serious grievances, no one for a moment considers that Canada's present status requires any such method. Diplomatic methods can handle all such questions between civilized countries, and when hot-headed individuals exceedingly short of ballast and usually seriously lacking in information pertaining to the very question they claim to so fully understand, endeavor to stir up strife and take the law in their own hands, true citizens can always feel safe in taking the opposite stand.

It is fortunate indeed that the Federal powers at Ottawa show no signs of weakness in regard to treaty obligations, or no inclination of imperiling Imperial interests, as the enactment of any Japanese exclusion law would involve. Surely the leaders of the Pacific Coast labor unions realize that regarding the Japanese right of entry into this country there cannot be a shadow of doubt.

The Canadian people ratified by Act of Parliament some seven short months ago a treaty of commerce and navigation with His Majesty the Emperor of Japan, and article one of it reads:—

"The subjects of each of the two high contracting parties shall have full liberty to enter, travel, or reside in any part of the dominions and possessions of the other contracting party, and shall enjoy full and perfect protection for their persons and property."

In a very able article on this subject, the "Montreal Witness," a paper long known from coast to coast for its independent uprightness and clear grasp of international matters, says:—

"It is a well known principle that treaty obligations with foreign countries override even the statute laws of the contracting countries, so that, apart from all other considerations, the anti-Japanese statute of the British Columbia Legislature is invalid and could not be enforced. The bill was only passed in the hope of making trouble for the Dominion Government, and, under the circumstances mentioned, does not even call for the Federal disallowance, which has been exercised on grounds of Imperial policy against the very same enactment for years past. The statute of the B.C. Legislature in this matter is not worth the paper it is written on, and Premier McBride's Government knows it. It was passed to humbug the trades unionists, and the bill never

received even the consent of the Deputy Governor."

Do labor leaders know these facts? We believe they do, and yet in the face of it, for paltry interests, they are endeavoring to create an exceedingly hostile feeling amongst Canada's large laboring class, believing that by doing this they will so handicap capitalists and leading contractors that ultimately the Federal Government will be harassed to that extent that it will endeavor to have a new treaty made. Allowing that there is a danger of overcrowding the labor market of British Columbia with Japanese labor, a means of meeting the difficulty can be found without recourse to war with Japan, which, judging by the action of the "Riot Leaders," would be their way of solving it. Japan some years ago voluntarily offered to restrict the number of her subjects emigrating to Canada, and the Hon. Mr. Nosse, Japanese Consul, says this was done "out of sympathy with the Canadian Government, for the benefit of our own people, and with the desire of preventing any irritation on the part of British Columbia by the over-flooding of the labor market."

The Japanese authorities show a most reasonable regard for the wishes of the Canadian people, so that we believe an amiable, mutual understanding would not be difficult to arrive at, provided mob violence does not reach that extent as to make such impossible.

Although the coast may be flooded with laborers, there is a great dearth at present throughout Canada as a whole, and allowing that a good class of white labor is preferable, yet we must acknowledge that a large percentage of the Japanese laborers are sober, industrious and reliable workmen, willing to work for less wages than white men, and consequently when labor is urgently needed, it would be out of all reason to consider a comparative handful of labor men should be allowed to dictate the policy of the Canadian or Imperial Governments on such a question.

Let us also remember that the Jap is rightly proud of his nationality and independence, Japan to-day being a power of the first magnitude, and that in view of the recent treaty between Canada and Japan, he not only has a right to look for protection while in Canada, but a right to demand it if need be, the same protection which we, as British subjects, would expect in a foreign country.

Our Readers' Views

No editorial responsibility is assumed for communications appearing in this department.

DRY FARMING AND IRRIGATION.

Editor Farm and Ranch Review.

During the course of the past summer people in and around Calgary who are interested in all matters pertaining to agriculture, had an opportunity of listening to a lecture on what is termed dry-farming, delivered by a gentleman from the American

side of the boundary line, who evidently understood whereof he talked, and whose speaking was therefore of a convincing nature.

This gentleman was evidently an enthusiast. Now enthusiasm is an excellent thing in many ways, but unless regulated by the governor of judgment is apt to gain such a momentum as will bring it into collision with something else which is just as much entitled to the right of way as itself, with resulting injury to one or other or both.

In this instance the subject likely to be encountered is that of irrigation, and because of the following reasons:

Many people might be led to believe that dry-farming must be infallible in securing abundant crops in cases where it may be practised, not only in normal, but in exceptionally dry seasons, and that it is a perfect substitute for irrigation, or a certain amount of rainfall; whereas, in reality, it is simply and only a means of enabling the soil to yield nutriment to a crop in a dry year, or in an arid region, better than would be the case without it. It neither takes the place of natural precipitation, or irrigation, but acts as a valuable adjunct.

Dry-farming, as it is now termed in the West, is not new, either in theory or practice, but has been understood and followed to excellent advantage by several generations of farmers, more especially in the Lothians of Scotland and parts of Lincolnshire in England, such work receiving no particular name, but looked upon only as a part of high-class agriculture. There the soil, both intended for and under crop, was ploughed, sub-soiled, and otherwise cultivated as frequently as time and opportunity would permit, and thus allowing a new supply of air to be frequently admitted to and inter-mixed with it.

This practice was invariably rewarded by the reaping of crops greater in quantity and better in quality, not because any more moisture had been added to the soil, or that it had been rendered by the process better able to retain what it had previously held or might from time to time obtain in rainfall, but because of the air admitted uniting in chemical action with the moisture, the action resulting in the rendering of additional nutriment to the roots of the crop, and also in raising the temperature at points lower than those directly affected by the solar rays.

In proof of this contention there is another course well understood and frequently followed in the same districts, the excellent results of which have been demonstrated times without number. Take a portion of land on which the soil is of a friable nature and the sub-soil such as affords perfect natural drainage. If this land be thoroughly under-drained, which means digging drains from three to three and a half feet deep, and from sixteen and a half to eighteen feet apart, with tiles carefully laid in the bottoms, the crops afterwards raised thereon are vastly improved, both in value and in bulk, not because of any water being carried away as a result of the process, but because of the atmosphere being allowed to percolate through the particles of the soil, which permits an extra amount of chemical action to take place with the same results as those described in connection with sub-soiling and thorough cultivation.

tain in rainfall, but because of the air it is not intended here to decry dry-farming or belittle the results accruing therefrom, but to point out that it stands altogether apart from irrigation.

The latter process of farming is almost as old as agriculture itself, although vastly more limited in the area over which it is practised, and therefore less perfectly understood, both as regards the manner of procedure and the results secured.

Until recent times the elevation of the lands on which it was practised above the sources of water supply was much less than is generally the case out here in the New World of Western America, and could therefore be carried out much more easily and at vastly smaller cost per acre. More especially is this the case in the lands of Western Canada, where the watercourses are, as a rule, so far below the general level of the prairie or plateau, which has a tendency to lead farmers to adopt a course which at first sight appears less onerous and likely to be followed by almost if not equally satisfactory results. Hence the danger of hearing the benefits of dry-farming described without reference to irrigation or without hearing each placed in its proper place, both individually and in connection with each other.

Irrigation stands alone and is unapproached either by natural precipi-

less oats, and most of the seeds, such as all mustards, stinkweed, etc., will pass through a horse to sprout and grow if dropped on favorable soil, and you have a fine start no matter how clean your land is.

The next question is: How can I overcome the heavy dockage at elevators? The answer is: Have your grain thoroughly cleansed by the threshing machine. How can this be done? By insisting that your thresher has an Economy Grain Cleaner attached to his threshing machine, and your oats and wheat will be thoroughly cleaned and fit for sale, feed or seed.

This cleaner can be attached to any thresher and the grain passes into it after being weighed and the thresher loses nothing. The small foul seeds are then delivered from one spout into a sack, while the coarser seeds and cracked wheat, which are good to crush, come down another spout, and the clean grain is delivered by another spout into the wagon or where wanted. This machine was tested at Moose Jaw, and cleaned grain 1-3 of 1 per cent. or 1 seed to 300 grains of wheat.

It will also thoroughly separate flax from oats or wheat.

"Threshermen be popular" and attach a grain cleaner to your machines, and farmers keep your farms clean by insisting that the threshermen have an Economy Grain Cleaner attached



Clareholm District

tation or any process of cultivation at present known to man. It can be prosecuted with abundant results, even where a very reasonable amount of natural rainfall is experienced, and therefore deserves the first and fullest consideration. It must, however, be borne in mind that by itself and unaided it cannot yield the benefits desired. It must be carried out thoroughly, intelligently, and in conjunction with sound agriculture, if really good results are to be attained. It will in connection with ordinary tillage yield excellent crops, but in accompanying it with "dry-farming," under drainage, or better still, with both, vastly more satisfactory results will be attained.

J. JOHNSTONE CURRIE.

HOW TO KEEP YOUR FARM CLEAN.

To the Editor of the "Review."

Sir,—One of the most important questions before the farmers of Alberta is "How am I to keep my farm clean from noxious weeds?"

The most careless practice is feeding oats, containing foul seeds, to horses on the farm for every horse that works in harness is fed more or

to their machine, as it can be attached to any threshing machine and only requires a very small amount of power to operate.

E. A. HAYES, Okotoks.

Editor's Note.

The writer of the above sounds a note of warning that is very much needed. We have dealt with this important question from various standpoints. Let our readers look up our editorial in the present issue entitled "Prevention cheaper than cure," and also the one entitled "The Devil's Croft," on page 8 in our August number.

LIVE STOCK

ESTIMATING WEIGHT OF STOCK.

The following rules may be applied to estimate the weight of live animals, says the London, Eng., Rural World: "In measuring a beef steer, take a string, put it around the animal, standing square, just behind the shoulder blade. Measure on a foot rule the feet and inches the animal is in cir-

cumference. This is called the girth. Then with the string measure from the bones of the tail which plumbs the line with the hinder part of the bullock; direct the line along the back to the fore part of the shoulder blade. Take the dimensions on the foot rule as before, which is the length. Work the figures in the following manner: Say for example that the girth of the bullock is 6 ft. 4 in., and the length 5 ft. 3 in., which multiplied together makes 33 square superficial feet; that multiplied by 23—the number of pounds allowed to each superficial foot of cattle measuring less than 7 and more than 5 feet in girth—make 759 lbs. Where the animal measures less than 9 and more than 7 ft. in girth, 28 lbs. is the number to each superficial foot. Again, suppose a calf or sheep should measure 4 ft. 6 in. in girth, and 3 ft. 9 in. in length, multiplied together, make 16½ square feet, that multiplied by 16—the number of pounds allowed to all cattle measuring less than 5 and more than 3 feet in girth—makes 264 lbs.

HORSE NOTES.

Feed the growing colts enough grain to keep them growing.

Sluggish horses are too often made by the way they are handled.

Sulphur and sweet oil mixed to a thin salve is an excellent cure for scratches.

One of the first things a growing colt should be broken to is to have his feet handled.

A large and strong body and frame cannot, in fact, be developed except by a bulky quantity of coarse food being consumed.

SELECT YOUNG STEERS FOR FEEDING.

From statistics covering more than fifty thousand cattle of all ages, it appears that the rate of growth decreases with age. The average gain in weight for steers up to one year of age is 2.3 pounds a day, while for five-year-old steers it is 1.2 pounds. In other words, yearlings gain weight nearly twice as fast as five-year-olds and eat less. Obviously then it does not pay to feed steers too long. Although we have seen some very good old stags that made quite acceptable grass beef after having been lost in the hills for so many years that the owners had given them up. In feeding steers on alfalfa hay alone, as is the common custom in Colorado, it has been found that 900 pounds is required to produce 100 pounds of beef in yearlings and 3,600 pounds of the hay for the same gain in five-year-olds, or in plain English five-year-old steers eat four times as much alfalfa hay as yearlings do for the same gain. Yearlings will eat fifteen to twenty pounds of hay a day and five-year-olds twice as much.

PROFIT IN PORK PACKING.

The Dominion Department of Agriculture, as well as the Department of Agriculture of Ontario, have been carrying on for some time now, a large number of experiments for the purpose of demonstrating as nearly as possible the cost of producing bacon hogs. One of the most elaborate of these experiments was that carried on last year by Prof. Day, with the co-operation of nearly half a score of farmers in different parts of Ontario. The results of this and other experiments have been reported, and a demand has more than once been made on behalf of the farmers that the packers be asked to show up the cost of transforming these hogs into bacon. But this demand, a reasonable one under the circumstances, has fallen on deaf ears.

While, however, the packers have

refused to voluntarily place their figures before a farmers' gathering, some facts which serve the same purpose were recently brought out in an action case. The action was for the purpose of determining the allotment and price to be paid for certain shares in the Wm. Davis Pork Packing Company.

In connection with this trial a table was exhibited showing the dividends which stock in the company has paid during the last thirteen years. In only one year has this dividend gone as low as 15 per cent., that was in 1903. In '98, the year in which the packers arbitrarily dropped hog prices in the autumn without any corresponding decline in the old country bacon market, the dividends went up to 120 per cent.

The exact dividends paid on Davies' stock for the last thirteen years is as follows:—

For the year ending March 31, 1893, 65 per cent.

1894, 34 per cent.

1895, 40 per cent.

1896, 45 per cent.

1897, 100 per cent.

1898, 120 per cent.

1899, 82 per cent.

1900, 60 per cent.

1901, 27½ per cent.

1903, 15 per cent.

1904, 30 per cent.

1905, 41 per cent.

1906, 25 per cent.

That the stock is still a good investment is further shown by the fact that J. W. Flavell, managing director, paid \$400 per share for stock with a face value of \$100, during the past year.

In view of these facts, packers will have serious difficulty in any attempt to convince farmers hereafter that they are always paying more for hogs than conditions warrant, and it should also give Western farmers interested in swine breeding a greater impetus to start co-operative pork packing factories.

BIG CATTLE SHIPMENTS.

Some Alberta cattle breeders are endeavoring to open up a market in Chicago for Alberta cattle. Messrs. Geissinger, Root, Reed and Powne recently shipped two train loads of choice steers from Red Deer, and Messrs. Croker and Pixley, breeders of high class grade cattle in the Pine Lake district, shipped a train load for the same destination about the same time. These are trial shipments, and naturally many Alberta stockmen are awaiting the outcome with considerable interest.

It would be a fine thing for the beef industry of Western Canada should a more remunerative marketing avenue be opened, and we commend these gentlemen for their enterprise, and trust their efforts will be highly remunerative.

A CATTLEMAN'S VIEWS OF OUR FUTURE.

By John Clay, a Veteran Chicago Cattle Man.

This passing of the range is a sad sort of business. We of the U.S. have seen a lot of processions of this kind—Western Kansas, No Man's Land, the Cherokee strip, the fencing of the Panhandle, Eastern Colorado, and now the disintegration of the big herds in Wyoming, South Dakota and Montana. Here in Canada some thirty-five years ago, described by Butler as the Great Lone Land, a terra incognita, invaded by the Canadian Pacific Railroad about 1880, there grew up a great ranching industry, and now in 1907, a little over a quarter of a century, it is on its "last legs." The wasteful days are about past, and in their place come the shifting conditions which change the frontiers into a state of civilization. Up and down the Bow River valley

homesteads are dotted everywhere—little white specks on the horizon, and you see the steam plough, the cultivator, the mower, all in action, and the self-binder was standing ready to harvest the first ripening grain. In our innocence we came to see a ranch country; in our imagination we expected to see great sweeps of grassy divides with cattle and horses dotted on them. The granger has taken the land, and he is going to hold it. Strange, is it not, that for years these ranchmen lived in these rich valleys and did not know their latent wealth? On the roundup grounds are great fields of wheat and oats. It is no myth. There they are, waving in glorious sheen before you. So we come once more in our lifetime on a transformation scene, the passing of the wild.

One morning when leaving Calgary we were introduced to Mr. Pat Burns. Mr. Burns is the most talked-of man in the Northwest. He has marked his footprints deeply from Calgary to Alaska. He was pointed to us as half oracle, half sphinx, but he turned out to be a very pleasant gentleman, frank, intelligent, observant, both giving and seeking information. Burns no doubt works for Burns, and although an Irishman, he resembles the proverbial Scotchman who keeps the Sabbath day and everything else he can lay his hands on. Burns, with the help of Gordon & Ironsides, controls the meat business of the Northwest. They occupy very much the same position as the Big Four did in our West 20 to 25 years ago, when we had a great plethora of low-class beef from the ranges and no outlet for it. In this country there has been but two outlets, the local demand and Liverpool. The freight and duty stopped the trade moving to the States markets. Lower Canada supplied herself, in fact, exported a good deal of live stock. Burns, by his energy and organization, came to control the local markets in the mountains, along the coast of British Columbia, right up to the Yukon. His markets, so far as we saw them, were models of cleanliness. In this way he could work off the rough meat. It is no trouble to dispose of the good stuff, but here, through some underground arrangement, Gordon & Ironsides could do the export trade better than anyone. Many of the ranchmen exported direct to England, but every one of them admits he would have done as well to have sold at home to the Trust, as they call it here. In a range herd there is always a top and a tail, and the tail sold badly in Great Britain, more especially when it had to go to the slaughterhouses instead of to the feeding pen. At best it was a narrow market, and it fell into the hands of a syndicate who could control it, and it has given rise to no end of controversy and heart burnings. Last year Mr. Burns handled 65,000 cattle. This year he may do the same, but what of 1908 and the after years? The cattle coming from the American side to graze can be returned duty free to the States. This country, with its depletion, will afford slim picking, and till matters readjust themselves, until the granger and small cattleman get in working order, so far as live stock is concerned, the supply will need to come from the outside. History repeats itself. With favorable seasons, the great strip of rich soil that lies and stretches away from the base of the mountains, will be given up to grain growing, but the soil gradually tires and needs rejuvenating, and this can only be done through live stock. They return fertility to the soil, just as the beet-grower of Colorado now depends for his heavy yield per acre upon the manure left from his sheep feeding.

Harking back to P. Burns & Co., Ltd., they have a slaughtering house at Calgary, and they are rapidly developing it to the dressed beef business. They will be to Canada what

Swift, Armour and others are to the States. In such a field they will not be alone. As railroads come, and they are coming, harnessing up different parts of the country with the Atlantic and Pacific, dressed beef plants will locate at favorable points. Burns being there first, and having good organization, will likely lead, but he will be followed by competition. Then will come the hour of the stockman. To those who have studied the question, spent their lives in this business, there is only one solution to our live stock trade, and that is the packing house, but to run such a concern you must have a steady supply of raw material day after day, month after month, because people eat steadily, not by fits and starts. Burns has had to supply his own winter cattle, hay-feeding some 15,000 head per year. He has had to look after his own supply from January to July. This is a big undertaking in a winter climate like Alberta. With the growing of grain, more especially oats, and lots of hay, there is no reason why the farmer of the Northwest should not turn out many thousands of fed cattle. At present no effort is made, and very much through this fact the beef business of the vast territory is a one-man power industry. The general public, nay, the average stockman, scarcely knows what the mission of a packing-house is. They do not realize that it is merely a big butcher shop run upon scientific lines. They have to supply their customers day by day. If they do not, they are apt to lose valuable accounts. Our corner grocery man and butcher in Chicago who buys for spot cash and deals where he likes, must be supplied with what he wants every morning. If Swift cannot do it, Armour will, and vice-versa, and if the larger packers cannot meet his wants, he has Pfaltzer kill him some choice bullocks, and so his business is kept going and his customers supplied. This business in our large centres must move automatically and with absolute precision. As the supply of meat and other products falls off in the coolers, the demand in the yards is quickened, and thus reflects in the country. Then there comes a time, as it did this spring, when mutton got so high that the average housekeeper would not buy it, and demand being curtailed prices declined. It may take some time for such conditions to prevail in the Northwest of Canada, but it will come. It is an economic condition which cannot be throttled by the one man or any organization of men."

RINGBONE AND SPAVIN.

A bulletin issued by the Kansas Experiment Station tells about ringbone and spavin in horses, the causes and the treatment. It was written by C. L. Barnes, and is as follows:—

Since olden times the term "ringbone" has been used to indicate an enlargement around the coronary joint. This enlargement is hard, being a growth of bone, and in many cases forms a complete ring, hence the name. A ringbone has a tendency to continue growing, and in rare cases attains the size of a man's head.

Any conditions which favor sprains, such as fast driving over hard or uneven roads, unequal paring of the hoof, thus causing the weight to be unequally distributed in the joints, and severe labor in early life, are causes. In addition to these may be mentioned blows, bruises or any injuries to tendons, ligaments or joints. There is no doubt that colts inherit a predisposition to ringbone.

Just as soon as the covering of the bone is bruised a liquid is poured out in the region of the injury. This inflammatory liquid hardens and forms the uneven growth known as ringbone. If the covering of the bone continues to be inflamed more growth is formed. Before the ringbone has

become chronic the disease passes unnoticed. If the abnormal growth of bone is between the bones of a joint, or if it tends to injure ligaments or tendons when they are moved, a ringbone is painful. On the other hand, a ringbone may be large and not cause very much annoyance, from the fact that it may not interfere with the free movement of ligaments or tendons, or encroach on the gliding surface of a joint. In addition to the growth that can readily be seen, a horse affected with ringbone is very lame when first taken out of the barn, but after moving for a few hundred yards gradually "works out" of the lameness, as horsemen call it, but when allowed to stand and become cool, and is then moved again, the lameness reappears.

Preventive treatment consists in keeping horses' feet trimmed properly, not overworking colts while young, careful driving on hard and uneven roads, and avoiding all injuries that are liable to strain tendons, ligaments and joints of the limbs.

Even after a ringbone has developed it may be cured by proper treatment of the feet, and applying a fly blister. The fly blister is prepared by mixing thoroughly one ounce of pulverized cantharides, one ounce of biniodide of mercury and eight ounces of lard. The hair is clipped over the ringbone and the blister applied with considerable rubbing. The horse's head should be tied, so as to avoid his biting the part blistered. A second application of the blister is to be used about a month after the first. If blistering fails to cure the ringbone, point-firing may be resorted to. It is necessary to "fire" rather deeply to secure good results, care being taken not to fire into a joint. After firing a fly blister should be rubbed into the holes where the hot iron has been used.

When all these methods have failed and the animal is not worth keeping for a long and uncertain treatment, a skilled veterinarian should be employed to perform an operation for the removal of the nerves supplying the limb in the region of the ringbone. After a horse has been operated on great care should be taken of his feet, from the fact that there is no feeling in the foot operated on, and serious results may come from stepping on nails, etc., and carrying them many days before the driver would notice foreign bodies.

The disease known in common language as bone spavin is an enlargement of the hock joint, similar to a ringbone about the coronary joint. It may affect the hock joint in such a way as to cement the small joints together, not causing lameness and apparently no blemish, but the free movement of the limb is impaired.

In addition to the causes given for ringbone may be mentioned sprains caused by jumping, galloping or trotting animals faster than they are accustomed to; also straining by starting a heavy load, slipping on an icy surface, or sliding on a bad pavement.

If the patient be examined before any bone growth has developed, inflammation will be detected on the inside of the hock joint, at the junction of the cannon bone and the joint. While in the stable the horse prefers to rest the diseased leg by setting the heel on the toe of the opposite foot, with the hock joint flexed. In travelling the patient is very lame when first taken out of the barn, but after travelling for a short distance goes sound. The diseased leg is not lifted clear from the ground, but nicks the toe in the middle of the stride, which is very noticeable on a pavement. Like a ringbone, a spavined horse becomes very lame after being allowed to stand for even a very short time, then moved again.

The treatment for spavin is much the same as for ringbone.

Believe in men and they will believe in you.

CATTLE SHIPMENTS.

Cattle shipping is fairly brisk, and the majority that has been shipped so far is for export trade. Cattle, although fat, are not prime. The late spring and moist summer is accountable for this.

Grass has been abundant this season, but owing to the somewhat cool and rather moist summer it has not "cured" in time for early export shipments, consequently cattle, although fat, are still soft. From now on shipments will be of better export quality. The long rail and sea voyage

winter warrants more being held the coming winter with increased prizes, and, if possible, their programme enlarged. This year, as last, the Seed Branch is prepared to do the following:—

To get out posters, folders, and attend to the advertising generally. To supply a judge and a lecturer, both of whom will deliver practical addresses, the former giving in detail the reasons for his placing of the awards, and the latter a talk on some interesting agricultural topic. In return for this agricultural societies are expected to allow the Seed Branch to arrange the date of their fair, which

is hoped will receive more of it at the seed fairs.

A seed judging competition would also add to the interest and increase the instructiveness of the fair. One of these was conducted last year and was an unqualified success. A small entrance fee was charged competitors, who were allowed five minutes to examine the samples of grain submitted, and who were then required to go to another room where they gave their placing and their reasons for so doing, fifty per cent. being allowed for "placing" and fifty for "reasons."

At the Winter Fair to be held in Regina during the latter part of March, by which time the seed fairs will be over, there will be a seed grain department with substantial prizes, and, if it can be arranged, a seed judging competition for the provincial championship. The prizes will be good and well worth competing for. Harris McFayden, the Sasatchewan representative for the Dominion Seed Branch, will give a good gold medal to the winner of first place in this competition.



Stock and Farm

Views

Okotoks District

is hard on export grass-fed beef at best, and especially so when shipping commences before the flesh is "firmed" by a few weeks' feeding on the "cured" grass that has made certain portions of the West so suitable for cattle raising.

In quality the beef is not quite equal to a year ago, but prices are slightly better.

We are pleased to notice that quite a few ranchers are shippers, and we trust that they will be successful, as lack of competition amongst buyers has been the greatest drawback which the cattle industry of the West has had.

THE FARM

SASKATCHEWAN SEED FAIRS.

The success that attended the twenty-one seed fairs that Saskatchewan Agricultural Societies tried last

will be done as much in accordance with the wishes of the society as the circuit it may be in will permit.

Amongst the changes for the better that might be made, the following are, it is believed, well worthy of consideration. While the prizes on the whole have been good, the total amount offered by the average fair last year being in the neighborhood of \$80.00, there is room for improvement, especially when this amount is compared with what is commonly given at the summer fair for much less important exhibits. As this is a grain growing province, that feature of it deserves encouragement, and it

It would also add to the interest if a weed seed identification contest was conducted in a manner similar to that outlined for the seed judging competition.

The Seed Branch will supply the samples of grain for both these contests.

Prize List.

While the same prize list would not be suitable to all societies, as the crops that require encouragement vary in different districts, the following is submitted as a basis on which to work. Many societies will no doubt increase each of these prizes:—

Class.	1st.	2nd.	3rd.
1. Spring wheat (Red Fife)...	\$20.00	\$15.00	\$5.00
2. Spring wheat (any other variety)...	18.00	10.00	5.00
3. Oats (white) ..	10.00	5.00	3.50
4. Oats (other varieties) ..	5.00	2.50	1.00
5. Barley ..	5.00	2.50	1.00
6. Barley (hulless) ..	4.00	2.00	1.00
7. Peas ..	3.00	2.00	
8. Flax ..	3.00	2.00	
9. Brome Grass ..	3.00	2.00	
10. Rye Grass ..	3.00	2.00	
11. Timothy ..	3.00	2.00	
12. Potatoes ..	5.00	3.00	1.00
13. Collection of mounted weeds ..	2.00		
14. Red Clover (native grown) ..	5.00		
15. Corn (native grown) ..	5.00		

Rules Governing Seed Fair.

1. All seed entered for competitions must have been grown by the exhibitor in the year 1907.
2. Membership in the society will entitle anyone to exhibit.
3. No seed shall be admitted for competition for prizes unless the quantities of seed offered for sale, as per samples exhibited, are at least fifty bushels of wheat, fifty bushels of oats, 20 bushels of barley, 10 bushels of flax, 10 bushels of peas, 5 bushels of rye grass, 5 bushels of timothy, 5 bushels of brome grass, 10 bushels of potatoes, and three of corn and red clover.
4. In the case of wheat, two bushels shall be shown, while in the other exhibits one bushel shall be exhibited.
5. Small samples of every exhibit will be taken and held by the society, in charge of the secretary, for exhibition purposes. These samples may be produced as evidence in the event of any dispute arising from the claim that the seed exhibited was not representative of that afterwards sold.
6. No premium shall be awarded on exhibits that contain impurities which, in the opinion of the judges, are of a noxious nature, or on those that are not considered worthy.
7. No exhibitor shall receive more than one prize in any class.
8. All exhibits of seed must be labelled after judging with the name and address of the exhibitor, name of the variety, amount of seed for sale, and the selling price.
9. In case of dispute a statutory declaration that these rules have been complied with may be required from each or any exhibitor of seed.
10. No exhibits, or sacks, or other coverings containing them, will be admitted with name, marks or initials thereon, and all must remain closed till judging commences.
11. Decision of judges to be final.
12. All exhibits for competition for prizes must be in the.....Hall.....not later than 10.30 a.m.....and shall not be removed until the close of the fair.

Seed Judging Competition.

The following prizes are submitted as a basis for the society to work on: The following prizes will be awarded to the three best judges of the following:—

Class.	1st.	2nd.	3rd.
1. Seed Wheat ..	\$10.00	\$7.00	\$3.00
2. Seed Oats ..	8.00	6.00	3.00
3. Seed Barley ..	5.00	3.00	2.00
4. Grass Seeds (Timothy, Western Rye or Brome) ..	5.00	3.00	1.00

Rules Governing Seed Judging Competition.

1. Any paid-up member of the society is eligible to compete on payment to the secretary of an entrance fee of 25 cents for each class.
2. Five minutes will be allowed each competitor to examine samples submitted.
3. In making the awards fifty per cent. will be allowed for placing and fifty for reasons.

Weed Seed Identification Contest.

The following prizes will be awarded:—

1. Largest number of correctly named weed seeds from sample submitted, \$10.00.
2. Second largest number of correctly named weed seeds from sample submitted, \$5.00.

Rules Governing Weed Seed Identification Contest.

1. Any paid-up member of the agricultural society may compete on payment to the secretary of the entrance fee, 25 cents, for each class entered.
2. Five minutes will be allowed each competitor to examine the samples submitted.
3. Prizes will be awarded according to the largest number of correctly named weed seeds.

Programme of Judging and Addresses

10.30 a.m.—The exhibits will be judged sharp on time. The score card will be used, and, when filled, left with each exhibit.

1.30 p.m. sharp.—The reasons for the placing of the awards will be explained in detail, and questions regarding these answered.

2.30 p.m.—The winners of prizes will give descriptions of the manner in which they produced their exhibits.

3.30 p.m.—Seed judging competition.

4.30 p.m.—Weed seed identification contest.

The Seed Branch will get out enough neat six-page folders (three and a half by six inches) to supply every member of the society. A sufficient number of posters will also be supplied, and, as previously mentioned, a judge and a lecturer. A prize list and programme such as above should insure a successful fair.

Shall Per Cent. of Germination Count?

In view of the fact that a considerable proportion of next year's seed may be frozen, and that the most satisfactory way of determining its fitness for seed is by actually testing its germinating qualities, the Seed Branch is willing to test samples. If agricultural societies wish to have the per cent. germination taken into consideration in making the awards, it will be necessary to secure from prospective exhibitors representative samples of the grains they intend showing all of two weeks before the date of the fair, so that there will be time to send in the samples to have them tested and to get the returns. Societies that wish to do this will be supplied with envelopes in which to send the grain, which will be carried free. To make certain that the grain sent by the exhibitor was the same as that shown at the fair, another sample will be taken at the fair and tested.

The prizes need not be paid out until the results of the test reach the secretary, and if they differ widely from the first test, the prize may be given to the exhibit testing well with a high score, as indicated by the score card, which will be left with each sample at the fair. This is the idea in the rough. The details will be worked out later for societies that wish per cent germinations taken into account when placing the awards. As this is the first time this has been suggested in the West, it might be well to confine it for this year to one class only, say that for oats. The real difficulty will be in getting farmers to send in their samples before the fair, but once the idea becomes known and its advantages recognized, there should be no difficulty, but for the first year its success will depend largely on the secretary, who will have to do some rustling. Kindly bring the matter to the attention of your society, and send your decision to Harris McFayden, Department of Agriculture, Regina, Sask.

The above is full of good, practical ideas, and we trust a great many

farmers, through their respective agricultural societies, will be benefited this coming winter by taking some part in improving seed grain and lessening weeds.

The Seed Branch is doing a good work and is well worthy your heartiest co-operation in making it a still more prominent success.

STORING POTATOES.

By D. W. Warner, Edmonton.

As it is nearing the time of year to store potatoes for the coming season, my experience may be of interest to your readers. In my tests of many ways of keeping potatoes for late summer use, one way at least appears to me as worthy of description in your paper.

Dig a pit about six or seven feet deep, and about four or five feet wide, but not wider, and any kind of an entrance way that suits the maker will do, providing it can be closed as securely as the rest of the pit. The reason I do not advocate more than five feet wide is because a pit of that width can be covered cheaper and stronger than a wider one; besides, there is less danger of loss by heating when the pit is comparatively narrow. If the pit is narrow the potatoes will never heat, whereas if the pit is wide and the potatoes piled high there is so much heat in them that it is almost impossible to keep them cool enough by any sort of treatment in a country like ours where the weather varies so much from warm to cold. If in a big pile and covered light enough for warm weather in winter, the frost may catch them before we know it. But when in a narrow pit, as has been described, the temperature of the earth on the sides of the pit will have a very great influence on the temperature of the potatoes. Of course the pit can be long enough and deep enough to put in as many potatoes as desired, and not interfere with the keeping qualities in the least, as would be the case in a wider place. Select a slight elevation and sandy soil if possible, so as to make reasonably sure of a dry bottom to the pit. My way to construct the pit is to dig the place the length wanted to hold the desired number of bushels and the width stated above. In order to make sure that the weight of the roof will not cause the sides to cave in, set a row of common fence posts alongside of the wall, about four feet apart will do, on either side, so a stringer can be placed on the top of the posts just even with the top of the ground on each side, but do not board up the sides, as you lose the effect of the earth to a large extent, in keeping the potatoes cool.

Then ordinary fence posts will do to cover with, as they are the right length to put on cross-wise, and make a good strong support for the heavy roof. Some slough hay or any sort of litter will do to place on the posts to prevent the dirt from rattling through between the posts. Slough hay makes the best litter for this purpose, as it lasts better under ground than most anything else. Place about two feet of dirt at the edges of the pit, and enough higher in the middle to make a good watershed. Then let that dirt freeze good and hard; it will take a lot of frost to go through two feet of earth. After it is well frozen, if there is snow on it, it will be all the better. Next put on some stable manure, horse manure is best to prevent the frost from going through to the potatoes. If more snow falls, put on more manure, but not so much at a time as to cause heating, or it will melt the snow, and this is liable to draw the frost out of the dirt roof, which I aim to avoid, as the frozen dirt is needed to keep the potatoes, and can be retained until very late in summer. You will notice that the manure serves two purposes. It pre-

vents the frost going through to the potatoes and also holds the frost in the roof, which serves to make a regular refrigerator of your potato pit. By this arrangement the walls and roof keeps the potatoes or other vegetables so cool that they can be kept in the best of condition. I have kept potatoes until the August following digging in this way, and received a handsome price for my trouble, but it is not necessary to keep them quite so late as that; as a rule new ones are ready before that time. I have found that just before the new ones come on the market, if the old ones have been kept in this way, that it pays well for the care taken, which really is little if any more trouble than the ordinary way, which lets them grow, and by late May or early June become comparatively useless. By way of encouraging me in keeping my potatoes this way, the merchants that I have been dealing with ask me to hold my crop until the other potatoes are gone, for I can hold them better than they can, and their customers are willing to back them by paying me a good price in order to be able to get such well kept potatoes so late in the season, and I will say in conclusion that my faith in this way of keeping potatoes is based on four years of success.

THE COUNTRYBRED.

How cruel seems this stony-hearted town,
How fair to me the fertile rolling plains.
'Mid these strange walls, that bear my spirit down,
I seem to hear the rattling of my chains
Back to the open spaces I would go,
That spread for miles and miles beneath the sky.
Back to earth's pleasant places that I know,
Where life's great river flows more slowly by.
Whenever I look from my window's height
The far blue distance seems to call me home.
Oh! Could I mate the swallow in its flight,
I'd seek that homestead fair, nor ever roam
Far from its fences. Could my foot but feel
The fresh cut furrow underneath its tread;
Could I but hear the blackbirds at my heel,
And see the great hawks wheeling overhead!
Children of earth, we long for Nature's life;
Slaves of the brain, we live, but as we hedge
Our lives with fresh protections in the strife
That kept our first forefathers on the edge
Of swift destruction. Still that earth-born strain
Calls to us native children of the plain,
And draws my heart-strings when I cast my eyes
Beyond the city to the rolling hills,
Far o'er whose crests my longing heart describes
The pleasant country where the farmer tills:
His fruitful fields behind his willing team,
And that bright vision of my home-sick mind,
Assumes the lovely texture of a dream,
Making the far horizon seem more kind.
Yet all in vain to that fair land I look
Where lies the happy homestead I forsook.
The city's spell is on me, I must stay:
The smiling sun-kissed country of my birth
Will lie forever in the far-away,
The fairyland where rainbow touches earth.
—A.C.G.

WHEAT AND OTHER CEREALS.

By W. H. Olin, Agronomist,
Colorado Agricultural College.

The assistant secretary of agriculture, W. M. Hays, is authority for the statement that we have seven farinaceous grains or cereals which can very appropriately be called The Big Seven. These cereals furnish the grains of commerce and are largely used as food for both human and beast. The world's production of these cereals, as given by the U.S. Yearbook for 1905, is as follows, figures given in round millions:—

Corn	3,105 million bushels
Wheat	3,337 million bushels
Oats	3,474 million bushels
Barley	1,174 million bushels
Rye	1,476 million bushels
Rice	99,195 million pounds
Buckwheat (U.S. production, world not known)	15.5 million bushels

While corn is king of the cereals, wheat is queen of them all, standing to-day as the most largely used cereal for bread purposes—the "staff of life" for civilized man. Corn is found in a limited area, while wheat belts the earth with the temperate zone.

Wheat is a native of Asia, but was brought to South America in the sixteenth century. From there it has followed civilization to all the Americas of this western world. To-day this cereal is grown from the sub-polar to the sub-tropical regions of both the Orient and the Occident.

While the origin of wheat is shrouded in obscurity, yet we know it to be the greatest world grain known, and we may very properly consider it a safe barometer of the world's civilization, since it has been used as a food plant for forty-six centuries. Egypt, the mother nation of antiquity, Greece and Rome, all cultivated and prized it above all the other fruits of the field. One of the first findings in the excavated ruins of Pompeii, Herculaneum and Strabae, the three cities burned by Italy's remarkable volcano in 79 A.D., I am told, was charred loaves of bread on tables in the houses of these cities. The nation raising the most wheat and transforming it into bread for its people has ever been a leader in progressive civilization.

Over 87½ per cent. of the world's wheat is supplied by the following ten nations, named in order of production: 1, United States; 2, Russia; 3, France; 4, British India; 5, Austro-Hungary; 6, Italy; 7, Argentine; 8, Germany; 9, Canada; 10, Roumania (U.S. Yearbook, 1905). The most important wheat consumers are here given, with the average pounds per capita consumed annually:—

1. French	467 pounds
2. Canadians	360 "
3. Italians	360 "
4. English	250 "
5. Yankees (U.S.)	240 "
6. Dutch	240 "
7. Austrians	230 "
8. Germans	183 pounds
9. Russians	93 "
10. Japanese	22 "

Wheat is now raised in 43 of Uncle Sam's states and territories. In 1850 the total wheat crop of our nation was but little more than the Kansas crop for 1906—93.3 millions of bushels. The nation's wheat exports for that year, 1850, amounted to one million bushels of wheat and two millions of barrels of flour. In 1859 a U.S. geological survey revealed the remarkable theory that Iowa and Wisconsin could never be first rate wheat lands, and one year later Klippart wrote that Ohio marked the western limit of profitable wheat growing, stating that the far west was mostly a desert, incapable of producing anything, much less good wheat crops.

It is too bad to spoil the reliability of this official report by stating that the latest crop reports show Iowa and Wisconsin to have produced over 20 millions of bushels of wheat, while in

almost the centre of Klippart's dreary desert, incapable of raising good wheat, is situated the greatest wheat state in our nation. One wheat farmer reports 75 bushels of wheat to the acre in this great wheat state of Kansas. Colorado has many thousands of acres in this crop and on her irrigated lands raises many acres of this grain, yielding 60, 70 and in one instance 87 bushels per acre. This latter is the highest yield per acre that the writer has on record for the crop year of 1906, certainly a credit to a land in "a dreary waste." The greatest bread basket in the world is beyond the extreme limits of successful wheat growing as set by Klippart in 1860.

The great tract of land in north-west Canada is now and will continue to be the greatest wheat producing region in all the wheat growing world. In the central and northern portions of the U. S. spring wheat varieties are raised, and in the south central portion, including Nebraska,

this city, is the largest mill in the world. It is seven stories high and has a capacity of 15,000 barrels of flour a day.

This opening of the middle west and northwestern mills has given an impetus to the European export trade, and the large freight steamers which are coming into use in our Pacific commerce bid fair to make the Orient—the original home of wheat—our most important buyer of wheat and wheat flour. The opening of the Isthmian canal will be a great factor in this development. To-day the world's mills grind out over 360 millions of barrels of flour for the 510 millions of bread eaters of all nations. The number of bread eaters is constantly increasing, and we must seek to make each acre sown to wheat produce its maximum crop if we would feed them all. For this reason we must carefully study the seed we sow that we may maintain quality and increase yield on all wheat lands, wherever tilled.

Should all the world's crop of wheat

seventeen bushels to the acre, and some brome grass is six and one-half feet high. Fully forty varieties of native and tame grasses are in the exhibit. These and the splendid alfalfa is proving of wonderful interest to the visitors, and every interested person is given a sample of Alberta grain in an envelope; also a private picture post-card showing the exhibits.

Alberta is great, not only in its grain producing qualities, but in coal, coal oil, marl for cement, natural gas, etc., and soft coal is so abundant there that it practically lies under every foot of land in the whole province. In many cases all that a farmer who lives near a river has to do when his coal supply runs short is to step to the river bank and help himself to coal from the surface. This is one of the splendid features of Alberta, and the immense coal beds in that province will be made more and more productive as the country continues to fill up. The natural gas is another



PLANTING SEEDLINGS, Lacombe Experimental Farm

Kansas, Colorado and Oklahoma, winter wheat seems well adapted to both soil and climate. The opening of the west and northwest to wheat culture has raised our wheat exports to over 155 times as much as was reported in 1860, while the flour exports were raised from two millions to eighteen millions of barrels. The total value of the wheat and flour exports of the United States on an average year, Mr. Edgar, in his excellent book "The Story of a Kernel of Wheat," states as exceeding 178 millions of dollars.

The wheat crop of 1906 of our nation was 735.2 millions of bushels. Before the opening of the northwest wheat region, Rochester, N.Y., was the flour city of the union. To-day Minneapolis, with her great mills, each having a capacity of 10,000 to 15,000 barrels of flour per day, is the flour centre of the world. Minneapolis mills produce annually 15½ millions of barrels of flour and 400,000 tons of feed. While only 30 per cent. of the Minneapolis flour is exported, yet, if the exported product of the mills of this one city were laid in a line, sack touching sack, it would reach from New York to Denver.

If the entire output of the Minneapolis mills were placed in a line, it would reach from New York to Honolulu. The Pillsbury, a mill of

for 1906 be placed in a circular elevator, it would cover more than 200,000 acres 45 feet above the Washington Monument, which is 555 feet high.

ALBERTA'S PROVINCIAL EXHIBIT.

The Province of Alberta is one of the interesting places of the world, and the eyes of all Canada is on this lusty young child of the west. The exhibit of the Alberta Government in the railways building at the Canadian National Exhibition is a centre of attraction to every visitor, and the arrangement of the various grains, grasses, coal and other products of the "Last West" has been made with a view to satisfying the public that Alberta is all she claims to be—a great and progressive province. Among the exhibits are grains, grasses, clovers, coal, brick, stone, sugar, etc. The bulk of the grain exhibit and all the grasses are this year's growth. Samples of oats are shown that have run as high as 110 bushels to the acre, and some wheat 60 bushels to the acre. The sheaves of grain and imitation wheat fields are specially pleasing to the farmers, who like to see the wheat and oats in the sheaf, just as they appear on their native soil. Flax is shown that ran

fine advertisement for Alberta. The gas can be used for heating, lighting and manufacturing purposes, and at Medicine Hat natural gas has been used for several years. Calgary is now boring for gas, and it has already been found north of Edmonton. Coal oil also has been discovered in Alberta, and wells are now being operated in Southern Alberta, near Pincher Creek, as well as in the north of Edmonton.

Mr. E. L. Richardson is in charge of the government exhibit, and is assisted by Mr. Frank Peterson. Any secretary of a board of trade in Alberta, as well as the Deputy Minister of Agriculture, will be pleased to send literature relating to the province on application.—The Globe, Toronto.

SASKATCHEWAN'S FIELD GRAIN COMPETITION.

The fifteen judges have finished judging the thirty-eight competitions in standing fields of seed grain in this province, in which there were a total of three hundred and thirteen entries. The judges were unanimous in their praise of what is being accomplished by these field trials. Farmers are taking more interest in the growing of first-class seed grain, so

that winners in the competitions are generally flooded with requests for seed. Those of the judges who were at work last year state that there is a great improvement in the quality of the crops shown this year over those of last. Greater care has been taken in having the seed clean, free from weeds, and free from other varieties and other kinds of grain.

On account of the lateness of the season, some competitions were judged before the fields entered in them were matured, and some of these may be touched by frost before being harvested, but under the circumstances nothing else could have been done.

On account of the lateness of the season two agricultural societies held competitions in standing fields of seed oats. The winners in these were: Togo, W. B. Ross (Banner); A. E. Taylor (Newmarket); J. Peters (Tartar King), and W. G. McDonald. At Battleford, first and second were obtained by Geo. Truscott (Banner) and D. K. Weber (Banner). The remainder of the agricultural societies confined their attention to wheat, with the results as indicated below:—

Alameda.

1. Jas. McCaughey . . . Red Fife
2. J. T. Young . . . "
3. J. Dageld . . . "
4. Mrs. Geo. Anderson . . . "

Abernethy.

1. C. Steuck . . . Red Fife
2. J. P. Peters . . . "
3. I. Steuck . . . "
4. H. Lemond . . . "

Broadview.

1. J. R. Finlayson . . . Red Fife
2. T. C. Wilson . . . "
3. Geo. Dawson . . . "
4. Frank Baker . . . "

Creelman.

1. W. A. Mustard . . . Red Fife
2. W. H. Wensley . . . "
3. W. H. Black . . . "
4. J. E. Good . . . "

Churchbridge.

1. Robt. Timmon . . . Red Fife
2. Robt. Fraser . . . White Fife
3. S. J. W. Taylor . . . Red Fife
4. Henry Roberts . . . White Fife

Carrot River, Kinistino.

1. Thos. Cay . . . Stanley
2. A. J. Horton . . . Red Fife
3. Frank Plant . . . "
4. Gilbert Plant . . . "

Carnduff.

1. J. S. Hopkins . . . Red Fife
2. John McKillop . . . "
3. J. M. Dill . . . "
4. T. R. Timmons . . . "

Duck Lake.

1. A. E. Crowther . . . Huron
2. John Bell . . . Red Fife
3. C. H. Kalbfleisch . . . Huron
4. Pierrie Lache . . . Preston

Estevan.

1. Ira B. Brown . . . Red Fife
2. W. Brooks . . . "

Fort Qu'Appelle.

1. Geo. Record . . . Red Fife
2. A. E. Stewart . . . "
3. R. O. Harrison . . . "
4. Thos. Gregg . . . "

Fairmede.

1. J. R. Clayton . . . Huron
2. J. A. Donall . . . Red Fife
3. R. D. Clements . . . "

Gainsboro.

1. Jas. Shell . . . Preston
2. Simpson Shaw . . . Red Fife
3. R. Rusk . . . "
4. P. H. Henderson . . . "

Grenfell.

1. Jas. Savage . . . Red Fife
2. John Fotheringham . . . "
3. John Nichol . . . "
4. Edward Adams . . . "

Indian Head.

1. Hugh Milling . . . Red Fife
2. M. McGregor . . . "
3. John Murray . . . "
4. W. J. Davies . . . "

Lashburn.

1. Wm. Saunders . . . Stanley
2. Claude Shillitoe . . . Preston
3. Ben Jones . . . Red Fife
4. G. A. Hodgson . . . Stanley

Lloydminster.

1. H. R. Miles . . . Preston
2. Geo. Pope . . . "
3. Rockham & Smith . . . "
4. Holland Bros. . . . "

Moosomin.

1. A. P. Crisp . . . Red Fife
2. Chas. Bowering . . . "
3. John Young . . . "

Maple Creek.

1. Geo. C. Stewart . . . Red Fife
2. Robt. Kells . . . "
3. S. M. Colquhoun . . . "
4. W. H. Reddick . . . "

Moose Jaw.

1. Barkley Green . . . Red Fife
2. Robert Elson . . . "
3. F. W. Green . . . "

Moose Mountain, Carlyle.

1. John Doty . . . Red Fife
2. John Hewitt . . . Preston
3. G. H. Anderson . . . Red Fife
4. Jas. Flynn . . . "

N. Battleford.

1. Chas. E. Hicks . . . Red Fife
2. Jos. Simpson . . . Preston
3. W. D. Finlayson . . . Red Fife
4. K. Finlayson . . . "

Oxbow.

1. H. Hammill . . . Red Fife
2. F. Garrell . . . "
3. A. Knight . . . "
4. W. A. Noble . . . "

Prince Albert.

1. Geo. Neilson . . . Preston
2. Shields & Elder . . . Red Fife
3. L. Stanley . . . "
4. Jas. Smith . . . "

Quill Lake.

1. C. Cowley . . . Preston
2. C. Vokes . . . Red Fife
3. D. Armstrong . . . Preston
4. T. Hodgson . . . Red Fife

Rosthern and Hague.

1. J. N. Friesen . . . Stanley
2. T. Abram . . . Red Fife
3. Geo. Fast . . . Preston
4. G. Mickle . . . Percy

Radisson.

1. M. Hayward . . . Red Fife
2. John Stevens . . . "
3. Goodrick & Sons . . . "
4. J. A. Mitchell . . . "

Santaluta.

1. H. O. Partridge . . . Red Fife
2. W. Neilson . . . "
3. E. A. Partridge . . . Stanley
4. A. J. Quigley . . . Red Fife

Saskatoon.

1. W. A. Kirkpatrick . . . Red Fife
2. H. Schitz . . . "
3. S. Pollock . . . "
4. M. Schmitter . . . "

South Qu'Appelle.

1. N. G. Vicars . . . Preston
2. F. G. Whiting . . . Stanley
3. Barnett Harvey . . . Red Fife
4. E. W. Loverine . . . "

Stoughton.

1. R. Tully . . . Red Fife
2. Edwin Slater . . . "
3. A. A. Pocock . . . "
4. A. Cameron . . . "

Saltcoats.

1. C. A. Partridge . . . Red Fife
2. Wm. Eakin . . . "
3. Fred Kirkham . . . White Fife
4. William Thompson . . . Red Fife

Strassburg.

1. Peter Fergusson . . . Red Fife
2. John Holman . . . "
3. R. H. Edwards . . . "

Stockholm.

1. F. Vrabritz . . . Huron
2. M. Drothard . . . Red Fife
3. Jos. Hermansky . . . "
4. P. Stromgren . . . "

Wolseley.

1. Wm. Mowbray . . . Red Fife
2. Jos. Conn . . . "
3. D. Fergusson . . . "
4. John Whitcock . . . "

Wapella.

1. Peter McIntyre . . . Red Fife
2. S. Brash . . . Preston
3. A. W. Hunt . . . Red Fife
4. F. J. McCrae . . . "

Yorkton.

1. W. D. Dunlap . . . Preston
2. J. T. Hall . . . Red Fife
3. Peter Ramsay . . . "
4. Wm. Simpson . . . "

Those who have watched the competitions since their inception last year will agree that they have already resulted in a great improvement in the quality of the seed that is generally used through the country, and with their continuation from year to year, with changes for the better as experience with them increases, the quality of Western Canada's grain is bound to climb still higher amongst the best from any country. This year, while there appears to be a slight increase in the amount of loose smut and not much of a decrease in weeds on account of the season, there is less stink-smut and an improvement in the purity and uniformity of the crops entered in these competitions. While some of this is due to the natural improvement in methods of farming, much of it is attributable to the seed fairs of last winter and the competitions in standing fields of seed grain of this previous summer. It is questionable if there is in existence to-day a more potent factor in agricultural education and advancement than the two institutions mentioned—the seed fairs and the field tests.

PRESTON VS. RED FIFE WHEAT

(Richard Waugh in Weekly Free Press and Prairie Farmer.)

I have the following letter from E. W. Early, secretary-treasurer of the Farmers' Institute at Marshall, Sask. Of course Mr. Early is here voicing his individual opinions only, but the subject is of greater practical importance than superficial readers would imagine. He says:—

"The examiners have been through this district, and the results in nearly all cases, as far as I have been able to gather, show that prizes have been invariably awarded to Preston wheat. This would naturally lead one to the conclusion that our governments are desirous of farmers growing this particular variety to the exclusion of Red Fife.

"Now, my experience goes to prove that Red Fife ripens here equally as well as it does in the eastern part of this province of Saskatchewan, and I am not aware that Preston produces a heavier yield or makes better flour; I think, if anything, the contrary. In conversation with Mr. McFayden, one of the judges, he remarked 'It is all right for you who have had experience in this country to grow Red Fife, but for the majority of farmers here (the Lloydminster district), I think Preston wheat is best.' Now why this should make any difference, for the life of me I cannot understand; possibly Mr. McFayden can explain, but he did not.

"In examining a field of Red Fife it is easy to detect a few heads of bearded wheat, but as I pointed out to him, there may be other varieties of bearded wheat in a field of Preston, which it would be difficult to distinguish. He admitted that, and said it was a point worthy of consideration.

"The prizes were certainly not awarded to the fields having the heaviest apparent yield, that is, if the

choice was between Red Fife, mixed with some bearded wheat, and Preston, the former being by far the heaviest, but the Preston was awarded the prize.

"I should therefore advise Saskatchewan farmers to grow Red Fife for the market and a plot of ten acres of Preston, if they wish to get a prize in the government standing grain competition."

There are points in this letter that seem to me worthy of very careful consideration. I assume the writer is about correct when he suggests that the Preston variety has got in this investigation more than its just deserts. If purity or the semblance of purity is not the only consideration in making such awards, it seems to me that the Fife has not got fair play. Preston was greatly boomed by the oracles a few years ago as about the only variety that had a chance to ripen in the newer portions of the northwest, and for that reason was naturally taken up by the newcomers, who took upon trust the advice given them by Dominion grain oracles. Knowing what I then did of the climate and general conditions, I would myself have hesitated to advise anyone to take up Red Fife to the exclusion of the hybrids raised by the government experts. For this reason Preston may have been much more used than any other variety.

There was another conspicuous argument for using Preston. It has always stood high on the government reports as a successful yielder. Earliness and heavy cropping are special merits provided we can be certain that such claims are well founded. I am willing to concede that Preston will ripen or appear to ripen a day or two earlier than Red Fife. But this claim is not so fully substantiated as some people imagine. Its berry is cleaner and harder and longer than that of Red Fife, but the Fife, if sown and reaped at the same date as Preston will make a plumper berry from which a firmer grade of flour can be taken than will ever be got from Preston. The man who buys for export may buy at the same figure a car of wheat blended with Preston or altogether Preston. But the merchant miller who knows his business does not want Preston and will never want it if I am a judge of flour milling.

So much for its earliness and milling value. Let us now examine its claims as a yielder. The methods of cultivation in vogue on the experimental farms just suit Preston, and the rank soils of the new West also favor it. It is a coarse feeder, and if liberally fed by means of special modes of cultivation, it will make a big show in the eyes of superficial critics. But take a ten-year-old farm whose virgin force has been well worked off, fall plow a field on that farm and sow half the field to Preston, the other half Red Fife, say two bushels of each to the acre. If there is more money in the Preston in such a case, then it is certain that the great majority of our wheat growers don't know their business properly. For it is a fact that Preston is a very rare wheat all over the leading wheat districts of Manitoba and Saskatchewan. I have recently gone over several hundreds of miles of the best districts of Manitoba, and if I have seen half a dozen fields sown to Preston my memory must be failing me. I did see mean crops on mean farms, in which Preston and wild oats were taking each a share of all that was going, but the general rule was little or no bearded wheat worth mentioning in any good field. I would esteem it a great personal favor if anyone can tell me of one case in which a farmer of any standing has ever tried Preston in preference to Red Fife, and stayed with it three years. I don't claim infallibility and will promptly back down whenever I can learn that in the regular way of cropping Preston has

been found a better yielder than Red Fife.

My correspondent goes a good way to show that even at Lloydminster Red Fife could beat Preston, and was given a lower place in the awards simply because there were bearded heads in his ten acre plot. That was not the fault of either the seed or the grower. When bearded wheat is grown all round and threshed through the same machine as my Fife, that is surely my misfortune not my fault, yet that is exactly why the hybrid is preferred by the judge to the pure-bred and old established variety whose quality needs no government certificate and has assured for it in the past as it certainly will in the future, the very first rank among the world's best milling wheats.

Whether the winning fields grew the purest wheat is from my point of view a very trifling consideration. The only point of serious importance is whether Preston is entitled to take front rank as a milling wheat and whether it will stand the test of a quarter century's experience under a great variety of conditions and emerge with a reputation for all the qualities so freely conceded to Red Fife by the world's best judges. I anticipate the verdict, and say confidently that it has not now, and never will acquire, the qualities that would entitle it to claim precedence of the old well tried variety which is virtually the one variety whose value no practical man would venture to dispute. If there is any dealer or miller who would stand up squarely on the Winnipeg Grain Exchange, and say that the car he is offering is one-half or three-fourths or altogether Preston, I want to make his acquaintance at once, and what no man of ripe skill would try to sell is not the line of goods any other man should try to produce.

Editor's Note.

This is a subject of great importance to a large majority of our readers. Red Fife, as a wheat adapted to general conditions in Western Canada, stands far in advance of all others. Yet we believe there are many districts where farmers would gladly grow a wheat recognized to be not quite its equal from a milling standpoint, provided the other wheat matured a few days earlier. For this reason we believe Preston is taking in some localities.

Regarding which variety of wheat won chiefly in the Saskatchewan field grain trials for seed purposes, we must say that Red Fife stands out prominently, as it certainly ought. It is true, in the case cited, Preston wheat won all four prizes, but we notice that in the 38 competitions held in Saskatchewan that Preston won five firsts while Red Fife won 27, and Huron and Stanley each three.

Elsewhere in this issue our readers can see a full account of the winnings at the above-mentioned competitions. We would like to have our readers discuss this question through the columns of the "Review."

OUR DEPENDENCE UPON GRASS.

When the wild prairie is first broken the soil is usually mellow, moist and rich, producing abundant crops when the good Lord supplies plenty of rainfall. After a few years of continuous cropping and cultivation, the physical condition of the soil changes; the grains become finer; the soil becomes more compact and heavier to handle; it dries out more quickly, bakes worse, and often turns over in hard clods and lumps when plowed. This compact texture and bad mechanical condition of the soil makes it difficult for the young roots of plants to develop properly, causing at the same time an insufficient supply of air in the soil, which is almost

if not equally as detrimental to the crop as an insufficient supply of water.

After a soil has been cultivated and cropped a long time it tends to run together and is very sticky when wet, but when dry the adhesive character disappears almost entirely. The grass roots which formerly held it together are decayed and gone, and then when loosened by the plow it is easily drifted and blown away. The perfect tilth and freedom from clods, so characteristic of virgin soil, is always more or less completely restored whenever land has been laid down to grass for a sufficient length of time. After the ground is covered with sod the puddling action of rain is prevented. As the roots grow the soil particles are wedged apart in some places and crowded together in others, and by means of lime and other salts the small soil grains become cemented into larger ones, and thus the open and mellow texture characteristic of virgin soil is restored.

Not only this, but by the accumulation of plant food in the roots the soil is made more fertile for succeeding

better for his health and his pocket-book. There is no land that was ever intended to be farmed in this or any other country, in this or any other age, that will not grow some variety of tame grass. Grass culture inevitably leads to some kind of live stock farming, and there is no disputing the fact that the only permanent basis of successful agriculture is built up by live stock, but even if the farmer will allow his grass to grow and use it for no other purpose than to turn under to restore the vegetable matter in the soil and bring it into proper physical condition, it will pay to grow it.

ROTATION OF CROPS.

By Prof. G. E. Day, of the Ontario Agricultural College.

A rotation of crops is extremely important to obtain the best results from the soil. The principal advantages derived from a rotation may be summed up as follows:—

1. Different crops possess varying powers of attacking and utilizing the plant food of the soil, and some draw more heavily upon certain constituents of the soil than do others. Hence, by varying our crops judiciously, we are able to take full advantage of plant food already in the soil.

2. Some crops, such as grain crops in general, tend to exhaust the humus, or vegetable matter of the soil, which is an extremely important constituent, owing to its great water-holding power, and to its influence in preventing the soil from baking, and keeping it always in good physical condition. If grain crops are grown frequently in succession, the soil soon becomes depleted of its humus, and, as a result, lacks water-holding power, and bakes hard during dry weather.

3. Some crops tend to improve the physical condition of the soil, owing to the fact that they admit of inter-tillage, during the time of their growth, such, for example, as roots, potatoes, corn, etc. A rotation, therefore, which admits of the regular introduction of these crops at intervals, tends to maintain a favorable texture to the soil.

4. In addition to tending to improve the texture of the soil, hoed crops give a good opportunity to check the growth of weeds. Hence, their systematic introduction into the rotation is of great advantage in preventing the spread of weeds.

5. Owing to the improved physical condition of the soil which a good rotation tends to bring about, it is much easier to thoroughly prepare a seed-bed for crops, and a crop that is put into the soil in fine condition has a very great advantage over a crop which may be sown on an equally fertile soil, but in poor physical condition.

Many other direct and indirect advantages derived from following a good rotation might be furnished, but the foregoing will be sufficient to illustrate something of the importance of a rotation of crops.

On the college farm, the arable land is divided into four sections. Theoretically, these sections should be of equal size, and in our case they are as nearly equal in size as circumstances will permit, though there is more or less variation in the acreage.

Section one contains the roots, potatoes and corn. These hoed crops are not sufficient to fill in the whole of one section, as this would give us more of this class of crop than we require. Some years ago we used to fill in the balance of the section with peas, but of late years we have dropped peas from the rotation, owing to the attacks of the pea weevil, and have filled in this section with oats. We aim to manure as much of this section as possible. Some years we are able to cover the whole of the section, other years only part. In case all of the section is not covered with manure, care must be taken in the next round to see that that part which was not manured on the previous occasion, receives its due share.

Section two is all under cereal crops, mainly oats and barley, with a small acreage of Winter wheat. The whole of this section is seeded with clover and timothy.

Section three is first-year meadow, used either for hay or pasture.

Section four is second-year meadow, used for either hay or pasture. As a rule, however, having two sections in meadow gives us more hay and pasture than we require, so that we make a practice of plowing up a part of the meadow at the end of the first year, consequently section four is only partly under second-year meadow, and the balance is either in some kind of grain crop or rape. If there happens to be a weedy portion of this section, it gives an excellent opportunity to check the growth of these weeds by means of a rape crop.

It will readily be seen how these crops follow one another. The grain crops, of course, follow after the roots, corn, etc. It is true that on part of, say section one, or the section which was under roots, corn, potatoes and oats, that grain would follow grain on that part of the section where oats were grown, but where the land is allowed to lie two years under grass and clover this is not a serious objection. We usually sow barley after the roots and potatoes and a part of the corn ground, and oats follow oats, as well as the balance of the corn. Of course, four years later, when these crops are to be sown again on the same section, these points must be borne in mind, and care must be taken to have the hoed crops cover that part of the section which escaped a hoed crop in the previous round. The first-year meadow, of course, follows the grain crop, and the corn, roots, etc., follow the second-year meadow. Usually, we commence plowing this second-year meadow during the latter period of July, and, as a rule, nearly all the sod is plowed by the first of September, unless it is some that we wish to leave for pasture purposes.

We like to have the ground that is intended for potatoes and roots plowed early. That part which is to grow corn and oats need not be plowed until late in the Fall, if necessary. The advantage of plowing rape on part of the second-year meadow ground, is that the old meadow answers very well for pasture for the stock along with the rape, and cattle or sheep will do better when they have grass to run on when pasturing rape. It also gives an opportunity to grow two hoed crops in succession on a piece of very dirty ground, because this section comes partly under a hoed crop the following year, and either corn or roots could be made to cover the rape ground of the previous year. We have found this method very effective against wild oats, and it should be effective, also, against such a weed as wild mustard. One marked advantage in leaving the land only two years under grass is the comparative freedom from white grubs and wire-worms. It is seldom that we have any trouble with these pests. They are found, usually, in



Sacks of Flour at the Peace River Crossing.

ing crops. When all this happens, which usually will on the tens of thousands of acres of virgin prairie that are being broken up every year, what is the remedy? The only thing is to go back to grass. The seasons have not changed. Politics may or may not, but it does not matter. The trouble is that the man has been violating the laws of nature, which are quite as inexorable as the laws of morals. The man who sins against his soil or against his soul will with equal certainty be punished in due time. The remedy is to go back to grass, to that kind of grass which is adapted to the soil and climate; in some sections alfalfa; in others clover, Western rye, blue grass, timothy, meadow fescue, brome grass—any kind of cultivated grass that will prosper in the climate, although strictly speaking we do not mean to classify alfalfa and clover as grass, for they are not.

When we tell farmers in a new country that they can grow the tame grasses we are almost always met with incredulity. We are told that clover will not grow in this country, blue grass will not grow, and no other kind of tame grass will grow. The sooner a man gets out of a country in which grass will not grow the

older meadows, and where the meadows are always plowed up at the end of the second year, it does not give the wire-worms a chance to become established in the soil. A short time under grass and clover means that a larger acreage must be seeded to grass and clover every year, which has a marked advantage in keeping up the supply of humus in the soil, and in this way improving the productivity of the soil. It is a very rare thing for us to have a failure, or even a partial failure, of clover, even in the driest seasons. This may be attributed to the fact that the soil now contains a large supply of humus, and is able to withstand drought much better than a soil which is poor in humus.

Of course, every man's rotation must be arranged to suit his own requirements. The rotation I have outlined meets our requirements here very well indeed, and it possesses several special merits. It admits of the frequent seeding with clover, the advantage of which has already been noted. It makes provision for the frequent introduction of hoed crops, and it allows us to grow two hoed crops in succession, where we think such is necessary. Probably no farmer would care to adopt our rotation just as we practice it here, as our requirements are somewhat different from the average, but at the same time the brief description which has been given may be useful in the way of affording suggestions to the man who is looking for some means by which he can improve his rotation.

STORING CABBAGE.

Cabbages may be stored in either a cool, moist cellar or a pit prepared in the field. Many keep cabbages hung up by the roots to the ceiling of the root house. In this way they remain fresh and sound, provided the temperature is kept at a few degrees above the freezing point. A pit for storing cabbage should not be wider than five feet or deeper than one foot, and of any length. It should be located in well-drained soil so that surface water will not lie on the face of the pit. The cabbage should be cut with a few inches of their stumps left on, and built up in the pit in the form of a cone; they should then be covered with about seven inches of straw and six inches of soil. Ventilation should be provided by means of bunches of straw standing on end as chimneys, about 12 feet apart. When very cold weather arrives about a foot of horse manure should be added.

ALBERTA FIELD GRAIN COMPETITIONS.

Last year there were seven agricultural societies took up the work, and between them 40 fields of wheat and 15 of oats competed. This year the competing societies have been increased to 10, with 86 fields of wheat and 27 of oats.

Cardston had the largest number of entries in the province, and from what we can gather the largest in the West. Thirty-two fields of wheat were judged, and out of that number 14 went over 80 per cent out of a possible hundred, after being scored very severely by Mr. W. C. McKillican, who has charge of the Dominion seed branch work for Alberta and B.C. One noticeable feature of the Cardston competition was that Alberta Red winter wheat took first five placings, Preston coming sixth with a score of 88½, the next three again being Alberta Red, with Preston tenth, followed by five more Alberta Red samples, then came soft wheat, Preston and White Fife in order named, followed by New Zealand, Alberta Red (several samples), and Preston. There were no fields of Red Fife competed, which seems

rather strange, even allowing that winter wheat predominates in the southern portion of the province. What spring wheat did compete was chiefly Preston.

The fields on the average were cleaner than a year ago, this being especially noticeable where it was the second competition, but the greatest improvement was along the line of less smut. There was also improvement in purity; still there is room for much more.

Each society gave at least \$100.00 as prize money, and where only wheat competitions were held a very common distribution of prize money was 1st, \$40; 2nd, \$30; 3rd, \$20; and 4th, \$10; or where oats and wheat were being competed for, the prizes were usually \$25, \$15, and \$10 for each of these cereals.

The following is a list of the societies and winners:—

Cardston.

Judge, W. C. McKillican, Calgary.

Wheat.	Points.
1. A. Pitcher, Alberta Red ..	92
2. S. M. Woolf, Alberta Red ..	91½
3. T. H. Wolford, Alberta Red ..	91

Magrath.

Judge, Supt. W. H. Fairfield, Lethbridge.

Wheat.	Points.
1. J. F. Cook, Alberta Red ..	75
2. Levi Jensen, Alberta Red ..	74
3. A. Shelter, Alberta Red ..	71

Oats.

1. Levi Harker, Banner ..	67
2. Levi Jensen, Banner ..	56

Medicine Hat.

Judge, T. H. Wolford.

Wheat.	Points.
1. Jas. Atkinson, Red Fife ..	83
2. T. L. Corbett, Red Fife ..	82
3. John Evans, White Fife ..	79

Oats.

1. T. L. Corbett, Banner ..	74
2. Jas. Fleming, Banner ..	72

Raymond.

Judge, Supt. W. H. Fairfield.

Wheat.	Points.
1. J. T. Smellie, Alberta Red ..	79
2. J. T. O'Brien, Alberta Red ..	71
3. Geo. W. Green, Odessa ..	70



Partial view of Calgary's Fair Grounds where the 1908 Dominion Fair is to be held.

Lacombe.

Judge, Albert Lougheed, Bowden.

Wheat.	Points.
1. John Flack, Alberta Red ..	65
2. A. P. Switzer, Alberta Red ..	60

Oats.

1. H. W. Metcalf, Montgomery ..	83½
2. A. P. Switzer, Banner ..	82

Leduc.

Judge, A. C. Hare, J.P., Earlville.

Wheat.	Points.
1. E. Alpaugh, Alberta Amber ..	92
2. T. O. Lachance, Alberta Red ..	79
3. August Kuhn, Alberta Red ..	77

Oats.

1. E. Alpaugh, New Century ..	79
2. J. O. Wood, Storm King ..	78
3. Fred Wyss, New Century ..	76

Lethbridge.

Judge, T. H. Wolford, Cardston.

Wheat.	Points.
1. W. Sherd, Alberta Red ..	90
2. W. H. Pawson, Red Fife ..	84
3. S. B. Pawson, Red Fife ..	81

Oats.

1. S. B. Pawson, Banner ..	93
2. W. H. Pawson, Banner ..	90
3. Galbraith & Hamilton ..	71

Macleod.

Judge, T. H. Wolford, Cardston.

Wheat.	Points.
1. Jas. Blair, Stanley ..	90
2. J. S. Vosburg, Stanley ..	88
3. D. J. Grier, Red Fife ..	84

Red Deer.

Judge, Albert Lougheed.

Wheat.	Points.
1. Hy. Jamison, Alberta Red ..	86
2. Geo. Domoney, Alberta Red ..	85½
3. John Ross, Alberta Red ..	84½

Oats.

1. J. T. Moore, M.P.P., Banner ..	70
2. C. A. J. Sharman, Banner ..	56

Vegreville.

Judge, A. C. Hare, J.P.

Wheat.	Points.
1. John Trimble, Red Fife ..	93
2. Donald McCallum, Red Fife ..	89
3. H. T. Payne ..	75

Oats.

1. J. Trimble, Ligowa ..	88
2. M. Kitto, Big Four ..	84
3. H. T. Payne, Big Four ..	79

LOCATION OF THE AGRICULTURAL COLLEGE IN ALBERTA.

By W. J. Elliott, Dairyman, Montana Agricultural College and Experiment Station.

A few weeks ago you permitted me space to bring out a few points relative to the above heading. In that article we pointed out the fact that at some of the institutions where the Agricultural College and University were located at one place, there was the most bitter strife on to separate them. We had reference, in one particular at least, to the conditions in

California, where the two institutions were located at Berkley. There was a decided agitation on foot to take the Agricultural College away from the city of Berkley and from the university, because a very much more practical education could be given where they had an experiment station, or farm, in connection with the agricultural college, and where the work of the classroom could be explained and demonstrated in a very definite manner. On the other hand, there were forces at work to keep the two institutions together in the city of Berkley.

The following, taken from Hoard's Dairyman, and written by Mr. H. A. Craft, explains the situation perfectly:—

"California's New State University Farm.

"Things come about after a while. But we have to wait. Evolution is slow but sure.

"The point I am getting at is that agricultural education is taking a more practical turn. Half a dozen years ago I called out no less an authority than Prof. W. A. Henry by a letter written to an eastern agricultural paper on the subject. I said then that the average agricultural college was turning out nearly everything excepting practical farmers.

"Later on I stirred the ire of the venerable Hilgard of the agricultural college of the University of California. I told him that I thought that the agricultural college ought to be separated from the University at Berkeley, moved from out the influences of the big cities on the bay and into the centre of the great farming sections; that the field and farm should be the laboratory of the farm student instead of the stuffy little class rooms of Berkeley, and that the average agricultural student ought not to have his brains bothered with every scientific fad that came up, but should be given good, wholesome instruction in farm practice. 'What!' cried the learned gentleman, 'remove the agricultural college from under the inspiring influence of this great institution of learning?'

"The experiment station, I mildly suggested, was the place to thresh out all the fads, and then if out of the whole mass threshed over they happen to develop a practical fact, it could be handed over to the agricultural college where it could be thoroughly demonstrated.

"Well, things are coming my way. The California legislature of 1905 made an appropriation of \$150,000 for the purchase and equipment of a university farm and to provide instruction in agriculture in connection therewith.

"Plenty of time and care was taken in the selection of this farm; of course, there were influences that wanted it located in Berkeley so that it might not be removed from beneath the divine pale of classical culture, but the right won out, and 780 acres of as fine land as ever laid out of doors were selected near Davisville, Yolo Co., some fifty or sixty miles inland and that distance from Berkeley. The selection was made by a commission consisting of Gov. George C. Pardee, Benjamin Ide Wheeler, president of the University, Alden Anderson, B. F. Rush and Ellwood Cooper, horticultural commissioner of the state.

"The new farm is composed of a tract of rich valley land, as level almost as a house floor and covered by an ample and perpetual water right. For this tract the sum of \$103,290 was paid, thus leaving quite an unexpended balance of the original appropriation to go towards buildings and equipments. The legislature of 1907 made an appropriation of \$132,000 for additional buildings, so the new enterprise starts out with glowing prospects."

Thus the right is always bound to win out. When these two different

institutions are located at the same place, you may take it as a pretty safe conclusion that some day the agricultural interests are going to ask for a separation. But by that time several hundred thousands of dollars will have been spent for buildings and equipment. And when you pull up an institution root and branch to move it to a new location, you may figure that the money invested in buildings and equipment is largely lost.

In the instance cited above it would be interesting to know how many hundred thousand dollars were spent to give the agricultural college a home in the city of Berkeley, and it would also be interesting to know how many dollars and cents worth of buildings or equipment will be moved from Berkeley to the new home of the agricultural college. It would be much wiser not to make such a foolish mistake in locating this very, very important institution.

Better give the agricultural college a separate home, and thereby the opportunity that it deserves. It will be enabled to do better work for the province; it will make for happier, more contented rural communities, because it will return more boys to the farm.

SEED GRAIN.

It seems early to mention seed grain, still we believe owing to the unfortunate fact that the germination of considerable grain has been seriously impaired by frost, that farmers should give this important matter attention at an early date. Those who have good seed grain should keep a considerable portion of it for seed purposes, and not rush all their best to market as fast as possible. Have any grain that you expect to use for seed tested for germination before long, and should it not prove up to the required standard you will then have time to secure good grain. We merely wish to point out that in many localities farmers will find it greatly to their interest to early provide next year's seed, and we trust a large number of them will see the necessity of securing the best that can be got, and that means making an early selection.

CANADIAN CATTLE AT CHICAGO.

(From The Weekly Live Stock Report, Chicago, Sept. 20.)

Probably no shipment to the Chicago market for some time has created more interest than a consignment of 21 carloads of cattle from the Northwestern territory which reached here Sunday evening last, consigned to Clay, Robinson Co.

The cattle were the property of J. I. Geisinger, Charles Reid, A. L. Powne, and Geo. L. Root—the latter honorary president of the Central Alberta Stock Growers' Association, whose headquarters is at Red Deer in Alberta. Unfortunately Mr. Root was detained at home by illness. The shipment was really an experimental test, and the owners were extremely well pleased with the general results.

One load of these steers averaged 1,396 lbs. and brought \$6.10 per cwt., grossing \$85.18 per head; 21 head averaging 1,374 lbs., realized \$5.50 per cwt., grossing \$75.57 per head; another lot of 122 head, averaging 1,245 lbs., sold for \$5.30 per cwt., these representing a gross of \$66; a fourth cut of 64 head that averaged 1,159 lbs., brought \$4.60 per cwt., representing a gross of \$53.34. In addition to the steers they had some cows of medium weight that grossed from \$40 to \$60 per head. The cattle were twos and threes, mostly of Shorthorn breeding.

When it is considered that the duty is appraised on the basis of \$30 for three year old steers and \$40 for fours,

and that so far as cows are concerned, there is a general appraisement of \$20 per head, the 27½ per cent. of these figures does not seem so prohibitive as a good many people might think. A glance will show that so far as steers are concerned, it means \$8.25 to \$11 per head, and on cows practically \$5.50 per head. The above sales indicate without question that the heavier and better Canadian cattle can be very profitably sent over the line to this market.

Despite the big run of cattle (35,199 head) that we had here Monday, the steers at \$5.30 @ \$6.10 sold at prices practically steady with the close of last week. There is an excellent demand for these heavier weight steers and a splendid enquiry for the heavy cows. In fact, prime Western cows are quotable up to \$5.25 per cwt. With the prospect of a shortage of cornfed natives, there is going to be a strong demand for the heavier weight rangers throughout the entire season, and this should be a big inducement to the Canadian ranchmen to keep the Chicago market well in mind.

These cattle were loaded at Red Deer, on the C.P.R., Sept. 7th, the above owners all ranging within a radius of fifty miles from that point. It was the first shipment that had ever been made to Chicago from that immediate section. They came via Portal, over the Soo Railway to St. Paul, thence over the Milwaukee to Chicago. The cattle were unloaded and rested three times, the first stop of thirty-six hours being made at Moose Jaw; the next, of twenty-four hours, at Velva, N.D.; and the last, of about the same length of time, at So. St. Paul.

AUTUMN SOWN CROPS.

Prof. C. A. Zavitz, of the Ontario Agricultural College, has been for many years experimenting with winter wheat as well as other autumn sown crops. In co-operation with his department of the college a large number of Ontario farmers also conduct experiments.

Fully two hundred and fifty varieties of winter wheat have been grown at the Agricultural College within the past eighteen years. All varieties are carefully tested for a period of five years, after which the inferior kinds are dropped and the most promising sorts are continued in future tests. In 1907, sixty-four varieties were under experiment. Of this number, fifteen varieties have been grown for less than five years, and forty-nine varieties for five years or over. As fifteen of the varieties have been grown for at least twelve years, the average results of these are very interesting and valuable. The following table gives the average weight per measured bushel for eleven years, and the average yield of grain per acre for each of two periods of six years, and also for the whole period of twelve years.

Variety	Color of Grain	Lbs. per Measured Bushel 11 Years *1894-1907	Bushels of Grain per Acre			
			6 Years *1894-1900	6 Years 1902-1907	12 Years *1894-1907	
Dawson's Golden Chaff ..	White	60.0	56.7	56.0	56.4	
Imperial Amber	Red	60.7	52.1	53.4	52.8	
Early Genesee Giant .. .	White	59.9	51.9	52.1	52.0	
Russian Amber	Red	60.9	50.7	52.1	51.4	
Early Red Clawson .. .	Red	59.0	50.9	51.0	51.0	
Egyptian Amber	Red	61.3	49.8	52.0	50.9	
Rudy	Red	60.9	47.1	48.6	47.9	
Tasmania Red	Red	61.7	47.4	48.0	47.7	
Tuscan Island	Red	61.0	46.7	47.0	46.9	
Geneva	Red	62.3	45.3	48.5	46.9	
Bulgarian	White	60.7	46.1	47.3	46.7	
Treadwell	White	60.6	42.3	50.3	46.3	
Turkey Red	Red	61.2	41.3	51.3	46.3	
Kentucky Giant	Red	61.2	42.4	49.4	45.9	
McPherson	Red	61.9	43.9	46.8	45.4	

* Owing to the very unfavorable weather conditions for winter wheat, in 1899 and 1901, the results for those two years are not included in the fore-

In 1907, the fifteen varieties here reported gave an average of 47.7 bushels of grain per acre, and of 62.3 pounds of grain per measured bushel.

According to the recent tests made in the bakery branch of the Chemical Department of the College the following were among the best varieties in furnishing good flour for bread production: Tasmania Red, Rudy, Onigara, Crimean Red, Yaroslaf, Turkey Red, Early Genesee Giant, Banatka, Northwester, Geneva, Imperial Amber, Tuscan Island, Kentucky Giant and Michigan Amber. These are all red wheats with the exception of the Early Genesee Giant, which is also classed as a red wheat in some sections. Unfortunately, most of these wheats are comparatively weak in the straw and are rather light yielders. Those varieties belonging to the Dawson's Golden Chaff type, although stiff in the straw and heavy yielders, produce grain with a lower percentage of gluten than many of the red kinds.

Generally speaking, white wheats yield more grain per acre, possess stronger straw, weigh a little less per measured bushel, are slightly softer in the grain, produce a more popular pastry flour, and furnish a somewhat weaker flour for bread production than the red varieties.

Within the past few years considerable work has been done in crossing a few of the best varieties of winter wheat with the object of originating new kinds which will combine the good qualities and eliminate the undesirable features of the parent varieties. Some of the most promising hybrids, which are constant in type this year, are those produced by crossing the Dawson's Golden Chaff with the Bulgarian and with the Turkey Red. Besides these plots of hybrids, many thousand hybrid plants were grown in 1907 and are now being carefully studied.

The results of twelve separate tests made at the college show an average increase in yield of grain per acre of 6.8 bushels from large as compared with small seed, of 7.8 bushels from plump as compared with shrunken seed, and of 35.6 bushels from sound as compared with broken seed. Seed which was allowed to become thoroughly ripened before it was cut produced a greater yield of both grain and straw, and a heavier weight of grain per measured bushel than that produced from wheat which was cut at any one of four earlier stages of maturity.

Winter barley has been grown at the college for eleven years, and has given an average yield of 56.5 bushels per acre. There are three varieties under experiment, and the Tennessee variety has given best yield. During the past 14 years winter barley has been completely killed out on three occasions.

There are those who make a close study of the penal code so as to keep out of jail.

DAIRY

BRANDON CREAMERY AND SUPPLY CO.

One of the neatest dairy exhibits we have seen at any fair was the Brandon Creamery and Supply Co.'s at the Brandon Fair this year. Very beautiful yellow roses and swans, etc., were made out of butter and formed part of the exceedingly attractive display. It was unique and extremely dainty, and attracted a great deal of attention, and much favorable comment was made concerning it.

OATS AND BRAN FOR MILK COWS.

The high protein content of oats combined with other good qualities, gives it a high rating as a grain feed for milk cows. In many parts of the country where it returns large yields per acre, it is a cheap source of protein. When oats are high, however, and bran can be purchased at a reasonable price, it often is better to sell the oats and feed the mill product.

There is a close similarity between oats and bran in their analysis and their value for feeding. One experiment is on record where whole oats were ground and gave 10 per cent. better milk and butter-fat returns than bran. Of course, bran is quite variable in its analysis, so that this result could only be considered as indicative. However, the above experiment does not disagree much with general opinion.

Bran, that is wheat bran, derives its high value from the fact that it contains a larger amount of digestible protein and ash than any of the common grains. Besides, it adds bulk to a heavy grain ration; for example, corn meal, and is a natural laxative—two points considered by many to represent the best properties of bran.

Comparing the analysis of oats with that of bran we find that for every hundred pounds of weight, bran furnishes three pounds more of digestible protein and nearly the same amount more of ash. While it is somewhat short on fat content we will not consider that feature; both of these feeds are used primarily for their ash and protein, principally the latter, and other qualities mentioned before. Let us compare the two feeds on a protein basis alone, placing the cost of this element at three and three-quarter cents per pound. This is what protein costs in feeds where it compromises a large part, as for example in cottonseed meal. Just on a protein basis, therefore, bran is worth nearly twelve cents more per hundred pounds than oats. Thus, if the cost of bran is ninety cents per hundred, oats would be worth twelve cents less, or practically twenty-eight cents per bushel. With bran at eighty cents, oats would equal it at twenty-five cents.

It must be remembered that this comparison has been based solely on protein basis. While we think that is the point on which to make the most representative comparison, there are other things to be considered; for example, the cost of marketing the oats and hauling back the bran. This expense would allow oats to be two or three cents per bushel above their value compared with bran, before the change would be profitable. Then in turn this expense might be offset by the superior property of the bran in giving bulk to the ration of grain and keeping the digestive apparatus in tone. Ash is low in many rations, and as this is a very necessary element in the making of milk, the large percentage in bran is a point in favor of the mill product.

From the above we do not wish to give the impression that when the price admits, bran should wholly replace oats, for we should always wish to feed several pounds of this unexcelled grain for milk making. But suppose oats are worth twenty-eight cents per bushel and bran eighty cents per hundred, it is quite likely that the farmer any reasonable distance from market could buy and feed bran freely, especially if no clover hay or other roughage high in protein could be fed. Some careful breeders would not be without bran whatever it cost, but the farmer not making a specialty of dairying must be economical and use feeds of his own raising as largely as possible.

Some are so deluded as to believe they have mastered a situation when it amounts to only abject submission.



Prize winning B.P. Rocks, owned by J. E. Clark, Lethbridge

RYE A MILK PRODUCER.

For fall and very early spring pasture rye is doubtless the best crop that can be used. Winter wheat is also useful for this purpose, but where pasturage alone is desired more can be obtained from rye, says T. M. Lyon, of Nebraska experiment station. From the middle of September until the middle of May, or even later, cattle may be pastured on rye. Experiments have shown rye when pastured to induce a large flow of milk and butter fat. In this respect it is one of the best of the annual forage plants. Some think for this purpose rye is best seeded with a press drill at the rate of one and one-half bushels of seed per acre about the latter part of August or first part of September. For hay rye is not so desirable as many other crops.

FEED AND CARE COUNTS.

Some of the recent records of the associations organized by the branch of the dairy and cold storage commissioner, Ottawa, are as follows: Ormston, Que., 154 cows averaged 869 lb. milk, 3.3 test, 29.2 lb. fat. There are several good individual yields of over 1,300 lb. milk.

Warsaw, Ont., Aug. 13.—200 cows averaged 649 lb. milk, 3.3 test, 21.6 lb. fat. Highest yield of milk in 30 days, 1,175 lb., testing 3.1.

The owner of the cow in the Central Smith Association that gave 1,930 lb. milk in June writes us as follows:

"This cow is bred of the strain of Calamity Jane on her father's side. I understand that he was one of her calves, but on the other side she is bred of a grade cow.

"I fed her grain up to the first of June, but after that I did not. When she got up to 71 lb. a day, I thought I would try and crowd her with some bran and shorts mixed, but she would not eat it. She is just eight years old, and milked as well last year as this. I like to feed half oat chop and half bran. This cow eats three gallons of bran a day and the same of the oat chop with hay once a day and straw twice.

"I think that it would be no trouble to make this cow give a lot more milk yet, if someone had her that would tend to her better. She is giving now 56 lb. of milk. I find it very important to add to her feed about a dessert

in 30 days.

Did you catch that point? In one association a lot of 124 cows yielded an additional 590 pounds of butter fat over the total product of another lot of 128 cows in another association. This is equivalent to at least one hundred and forty dollars, representing the amount of hard cash that the 128 cows might easily have returned to their owners more than they did—and that just in 30 days. A simple word of advice that means thousands of dollars extra into the pockets of our farmers is just this—get rid of the poor cows and feed the pretty good cows more liberally.

At Warsaw, Ont., 199 cows gave a total yield during the June test of 152,880 lb. milk, but at North Oxford, Ont., the same weight of milk within forty-five pounds was produced by 147 cows; in other words, 52 cows fewer need have been milked and cared for in the Warsaw Association to bring as much return. What a distinct saving of energy there might be if the general average production were better. The average yield increases quickly when the poor cows are disposed of. The poor cows can quickest be detected just as soon as a record is kept of the production of each cow in the herd. Cow-testing associations are of immense benefit in this regard.

POULTRY

POINTERS FOR POULTRYMEN.

Laying hens consume more food than idle ones. See that they get it. Hens kept in flocks of thirty or forty, with about two males, produce the best results.

All domestic fowls need salt. Too large an amount of salt, however, is fatal to them.

The floor of your poultry house should be higher than the surrounding ground.

The axe is a good remedy for many of the egg-eating hens. It kills the hen, but it also kills the habit.

If you are making a business of raising poultry, keep the males by themselves except during the breeding season.

The farmer who allows his turkeys to roost on the fence by the road is liable to be minus a turkey for Thanksgiving dinner.

Keep your eye on your turkeys at this time of the year. Don't let them stray too far from the house and roost on the fence by the roadside.

Keep up your fight with lice. You can fight them better than the hens can. Cold weather does not kill them, though they are less active when it is cold.

Barns and sheds are no places for the chickens to roost. All up-to-date farmers provide a comfortable house for their poultry and keep the house comfortable.

A cheap way to fatten geese is to feed them chopped turnips or other vegetables at this season of the year. Wheat or a mixture of wheat and barley meal in addition makes an excellent diet.

If the poultry house has not been made sweet and inviting your pullets may steal their nests in the weeds this fall. Eggs mean money, so don't let this happen.

It is true that the flavor of the eggs often depends upon the kind of food the hens are provided with. For this reason we feed very little onions. If you wish rich flavor and good quality feed wholesome food.

The cost of keeping a hen on the farm is less than 50 cents per year. An average hen will lay ten dozen eggs a year. Good layers will lay many more. An increase is raised throughout the spring in addition to this. You can figure the profits.

In the fall the farmer lays in an abundant supply of fodder for his horses, cattle and sheep during the winter. So should you provide for your poultry. They need fodder also, such as imperfect cabbage heads, turnips, small potatoes. These make excellent diversions from the ordinary poultry house menu. A change of food is very beneficial to the poultry. Green food in winter makes an excellent desert.

A WHEEL ROOST FOR POULTRY.

The coziest and most practical device imaginable for furnishing warmth and comfort to the hens during winter nights has recently been suggested. After a thorough cleaning of the floor in the poultry house a stout post about two and one-half inches in diameter is driven firmly down about three feet from the wall. If the house is small, so only one is needed, put it in a corner. Sharpen the top of this stake and set thereon a discarded wagon or truck wheel. This makes an ideal roost, one which will accommodate from twenty-five to thirty hens, according to size of wheel. It is remarkable how such a roost delights the hens. The spokes are all on a level. The rim and spokes make

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ORCHARD SCENE on Coldstream Ranch (Lord Aberdeen's) Okanagan Valley, B.C.

a natural foothold, there is no falling off, and the biddies sit in a fluffy bunch, as comfortable as you please.

But the roost is only part of the plan. If the wheel is placed in a corner the two walls will furnish two sides of the proposed "bedroom." Set a post of 1 by 2 inch strip four feet from each of the side walls. Nail other strips from the top of this post (which should be two feet higher than the wheel) to the side walls. From these strips hang a curtain made of either canvas, coarse burlap or old carpet, according to convenience, which can be rolled or put up in the daytime out of the way. Over the top make either a board covering or one of the curtain material. In this way the hens are comfortable even in a cold house. In many respects burlap is the best curtain material, as it admits air, yet is draft proof.

The wheel should not be more than thirty inches from the floor. The "hop up" box will prove a convenience. The wheel is also very easily cleaned. Take it outside and after placing it on a bunch of straw fire it for a brief space, or it can be readily sprayed first on one side and then the other.

The advantages of this scheme, as described in Iowa Homestead, are evident. The old way of fastening the roosts makes it difficult to successfully fight lice and mites. It is also a great economizer of room. The floor space thus saved can be kept clean for scratching purposes.

VEGETABLES FOR POULTRY.

All poultry keepers who have a garden and grow vegetables should utilize the surplus for their fowls, as they help to keep the birds in health and also economize the expense of feeding, says A. V. Meersch in Western Poul-

try Journal. In the summer months fowls do not require as good feeding as in the winter, on account of their being able to find such a large amount of natural food for themselves in the shape of slugs, worms, grubs, seeds and insects. In many cases where the winter rations are continued through the summer disease and death follow, owing to the birds becoming overheated and too fat internally. Green food of all kinds is invaluable for keeping poultry in health; therefore all cooked leaves of cabbage, lettuce, cauliflower, etc., should be mashed for the morning feed. Uncooked cabbage leaves should also occasionally be thrown in the run, as they are fond of them, and they are to be recommended on account of their cooling and health giving properties. The poultry keeper with a garden should therefore let nothing in the way of garden food go to loss, with the twofold object of keeping the fowls in health and of reducing the food bill.

POULTRY FATTENING STATIONS.

The Department of Agriculture of Alberta and Saskatchewan are doing good work to foster the poultry trade by conducting several poultry fattening stations in connection with the government creameries at various points in these provinces.

The Alberta department established several stations last year and found them very successful. At that time they offered to buy chickens from farmers, paying an advance of 8 cents per pound live weight. The birds were fattened for three weeks, then killed and marketed, and after deducting all expenses incurred the balance was distributed equally among those who had sold the birds on the ratio of live weight

when sold. The whole output last year was sold for 20 cents per pound, and it was found after deducting expenses that $4\frac{1}{2}$ additional cents could be sent to the original owners, which was done, making a total of $12\frac{1}{2}$ cents per lb. live weight which the farmer received for his chickens.

This year the Alberta department have gone into the business on a larger scale, and already have marketed considerably over 2,000 birds. An advance of 10 cents per pound live weight is given for chickens hatched after March 1st, 1907, and 8 cents for fowl hatched previous to that date.

The Saskatchewan department is working along very similar lines. Experiments have proven that milk is an economical chicken fattener, and also that the flesh produced, when milk forms a considerable portion of the ration, is of good color and a very desirable taste. For these reasons the poultry fattening stations can be operated most advantageously close to creameries. These departments of agriculture deserve commendation for increasing the local demand for poultry by supplying well-fattened, properly dressed birds.

THE EVER PRESENT LICE PROBLEM.

The lice problem, like Banquo's ghost, will not down. We may hope against hope, and feel safe that our poultry is not infested with lice, and yet there is a feeling in our inmost considerations that there must be some lice lingering somewhere about the premises or the plumage of the fowls. We have written about lice so much that we almost feel that old gray army shirt moving on our very backs with a peculiar species which once infested every blue coat. We have fought them in nests, on roosts,

while ranging, and both day and night we have busied ourselves with a long and urgent fight against this parasite.

Recently a veteran came into our office who had spent many years in the management of poultry, and we began talking poultry, as we are wont to do when "poultry cranks" drop in. He told us that he had never found anything as satisfactory as a method he recently hit upon. He made a circular, barrel-shaped cylinder out of cloth. In this he placed a number of chickens, big and little, old and young. A goodly amount of lice remedy was put in in a powdered form and the crank turned so as to mix the whole up in a systematic manner. The powder found access to every portion of the bodies of the fowls with their feathers ruffled up and the inside of the machine was simply covered with lice. This ended the matter for that time, and soon the plumage of the fowls was most lustrous.

He then painted all his roosts with a tar preparation or liquid lice killer to prevent a new crop of lice from getting in their plumage, and in a few days he gave them another treatment so as to get the lice that had hatched from the nits, and the business was done. He said this was the most successful method he had ever tried. He could treat a great number of fowls in a very short time in this way.

John Gemill, of Pilot Mound, Manitoba, recently bought the Holstein cow, Empress Gerben of Home Farm 2nd, from Mr. W. B. Barney.

What men get and do not earn is often a curse instead of a blessing.

Success is only for the man who earns it.

Shows, Meetings, Etc.

FORTHCOMING EVENTS.

Saskatchewan Fairs.

North Battleford, Oct. 1, 2.
Whitewood, Oct. 2.
Duck Lake, Oct. 4.
Lashburn, Oct. 4.
Chillwood, Oct. 8.
Kinistino, Oct. 8.
Langham, Oct. 8.
Tisdale, Oct. 10.
Melfort, Oct. 15, 16.

Manitoba Fairs.

Gilbert Plains, Oct. 1.
Plumas, Oct. 2.
Stonewall, Oct. 2.
Meadow Lea, Oct. 3.
Sanford, Oct. 3.
Reston, Oct. 3.
MacGregor, Oct. 4.
Beausejour, Oct. 4 and 5.
Selkirk, Oct. 9 and 10.

B.C. Fairs.

New Westminster, Oct. 1 to 5.

Alberta Fairs.

Medicine Hat, Oct. 1, 2.
Stettler, Oct. 1, 2.
Vermillion, Oct. 1, 2.
Vegreville, Oct. 3, 4.
Lacombe, Oct. 3, 4.
Ponoka, Oct. 7, 8.
Viking, Oct. 7, 8.
St. Albert, Oct. 8, 9.
Wetaskiwin, Oct. 9, 10.
Innisfail, Oct. 11.
Nanton, Oct. 15.
Pincher Creek, Oct. 16.

SASKATCHEWAN'S WINTER FAIR PRIZE LIST REVISION.

At a recent meeting of the executive committee of the Saskatchewan Stock Breeders' Association it was decided to hold the Winter Fair on March 19th and 20th, according to a resolution passed at the last annual meeting. The revision of the prize list was the principal work for which the meeting was called.

There were several minor changes made in the rules governing each of the Fat Stock Show, Cattle Sale and Horse Show, some of the principal of which are mentioned below.

The dates for the closing of the entries for each of these events was changed to February 20th, instead of having three different dates as last year. A change was made to rule 20 of that governing the Fat Stock Show as follows: "Transportation will be paid on all carcasses purchased by persons residing in the province outside Regina." The object of this was to secure some competition among the buyers in order that the exhibitors in the carcass competition would get at least a fair price for their exhibits.

In the prize list for the Fat Stock Show championships, sections were added to classes 1, 2, 3, 4 and 5, these prizes to be paid in cash by the department, and any other special prizes that are required to be given for other than championship classes.

In swine the weights were changed from 160 to 240 pounds to 160 to 225 pounds.

For the Horse Show this additional rule was added: "Any horse suffering from infectious or contagious diseases will not be permitted on the grounds." In the prize list of the Horse Show, "yeld mare," in order to make the prize list clear, was given this definition: "Female, four years or over, not showing evidence of being in foal."

The only difference in the horse prize list is section 5, class 2, where

yeld mare classes for Shires, Percherons, Suffolk Punch and Belgians were added.

In the Cattle Sale two new rules were added in place of rule 15, dealing with the order of cataloguing and the order of sale of animals:—

15. Cattle of each breed will be catalogued alphabetically according to the names of the owners, and the breeds shall be in the following consecutive order: Shorthorns, Herefords, Angus and Galloways, other breeds beginning with the breed whose turn it is to be sold first any year.

16. The order of sale shall be as follows: The sale of 1908 shall begin with Herefords, followed by other breeds in the consecutive order as mentioned in rule 15, and each succeeding sale shall begin with the breed offered last the previous year. The animals in the breeds shall be sold as follows: Prizewinners first in the order of their awards, and the remaining animals shall be sold according to the alphabetical order of the owner's name, the alphabet being divided into three sections, A to G, H to Q, and R to Z, and each year's sale shall begin with that section offered last the previous year.

* **WHERE AMALGAMATION** *
* **FAILED.** *
* Those of our readers who *
* are interested in the location *
* of Alberta's Agricultural *
* College should read what Prof. *
* Elliott has to say regarding *
* the amalgamated Agricultural *
* College and University at Ber- *
* keley, California. *
* His article appears on page *
* 17 of this issue under the title *
* of "Location of the Agricul- *
* tural College in Alberta." *

Re LEASING REGINA EXHIBITION GROUNDS FOR STOCK YARDS.

The executive of the Saskatchewan Stock Breeders' Association, after discussing the advisability of leasing the Regina exhibition grounds for stock yard purposes, decided that President Sinton was wise in the stand he took when the question was brought before the City Council, and as a result the following resolution was moved by P. M. Bredt, seconded by Alex. Mutch, and unanimously carried:—

"That this executive heartily approve the stand taken by the president of the association, Mr. Sinton, in opposing the proposal to lease the exhibition grounds and buildings to private individuals for the alleged purpose of establishing stock yards in Regina. In our opinion, if this proposal were carried, it would be disastrous to the success of the Annual Bull Sale, Fat Stock Show and Horse Show held under the joint auspices of this association and the Department of Agriculture, and it would jeopardise the success of the Annual Exhibition held under the auspices of the Regina Exhibition Association, for the reason that the owners of valuable pure-bred stock would not risk having their animals infected with contagious diseases which might or might not lurk in the buildings if they were used for the purpose suggested by the committee from the Board of Trade, who waited upon the City Council.

"The breeders of Saskatchewan have in the past pointed with pride to the facilities that the city of Regina have placed at their disposal for the purpose of the annual live stock events above enumerated; and in extending an invitation to breeders from

other provinces to visit Regina and compete at our annual shows, we have been proud of the accommodation that we have been able to offer them for their exhibits. We feel, however, that we should not be able consistently to urge upon breeders of outside provinces to exhibit at our shows if we felt that our buildings might by any chance be contaminated with infectious or contagious diseases.

"While expressing, therefore, our appreciation of the liberal manner in which the City Council have provided for the wants of our association and of breeders generally in the past, we would respectfully urge upon them the importance of considering well any proposal to use the exhibition buildings for any other purpose than that for which they were originally constructed."

BONUSING DRAFT STALLIONS.

At the same meeting as reported above, the following resolution was moved by Mr. Alex. Mutch, and seconded by Mr. P. M. Bredt, and carried:—

"Whereas the system of agriculture followed by the farmers in Saskatchewan demands the use of a large number of draft horses, the supply of which is unequal to the demand, and,

"Whereas the climatic conditions of the country are such that the breeding of a high class of animals can be profitably carried on within the province to the advantage of the breeders and purchasers alike, and,

"Whereas the supply of high class draft sires in the province is inadequate to the demand, therefore

"Be it resolved that the executive committee of the Saskatchewan Stock Breeders' Association recommends that the Provincial Government inquire into the condition of the horse breeding industry in the province with a view to encouraging the breeding of a high class of draft horses and eventually curtailing the annual expenditure of money for imported work horses of questionable value, and at the same time improve the quality of the horses in the province; and we suggest, after long and careful deliberation that the most practicable way of so doing is by a system of bonusing persons bringing into the province high class, pure-bred sires of the recognized draft breeds, and by bonusing the first purchaser of a high class, pure-bred sire of any recognized draft breed, bred in the province; and

"We submit that before the purchaser of a stallion shall receive any bonus that by future enactment he may be justified in applying for, that the stallion purchased by him shall pass the examination of a thoroughly qualified committee appointed under the direction of the Minister of Agriculture, with the advice of this association; and that the said horse shall be registered in a recognized stud book of the breed to which he belongs, shall be free from any hereditary unsoundness, shall be of a reasonably high standard of individual excellence, and shall stand for service in the province for a period of at least three years.

We further submit that by so doing both the breeding and importation of a superior class of animals will be encouraged, that no interference with private enterprise will result, and that the general quality of horses in the province will improve with the continuation in force of an Act embodying this principle."

THE NEXT DOMINION FAIR.

Word has reached us that Calgary is to have the 1908 Dominion Fair. E. L. Richardson, manager of the Calgary Fair, also C. W. Peterson, the former manager, and quite a number of prominent men from Calgary

and district, have used their influence for some time in an effort to secure the 1908 Dominion Fair for Calgary, and we compliment them on their success.

Fair board directors and others interested must remember that the grant set aside for the Dominion Fair is given with the express understanding that the money is to be spent for the advancement of agriculture. Attractions naturally must be provided, and we consider the past record of the Calgary Fair board management can be taken as reasonable assurance that Alberta's first Dominion Fair will be clean.

We feel satisfied that those in charge of "Fair Matters" at Calgary will see to it that the 1908 fair will be a great success. The Calgary district is noted for its very excellent studs, herds and flocks. Many winners at Dominion Fairs and other leading shows have hailed from the Calgary district. They have gone from home and returned loaded with laurels, and soon they are to have an opportunity of vicing with our "Dominion's best" at their own home. The Calgary fair grounds are very suitable for the purpose, and already a good nucleus, in the shape of very excellent buildings, is on the grounds. These buildings are used at present for the annual summer show, also the fat stock and spring stallion show and world-famed bull sale. Thus Calgary is at present better equipped for the holding of a Dominion Fair than any city between Winnipeg and the coast.

So far as equipment is concerned, Regina is a good second, and in our estimation the 1910 Dominion Fair should be held there. It is fairly well understood that the principle of holding the big fair alternately in the East and West has been in vogue for some time. Thus we concede the 1909 fair to some eastern city, and then consider that the Saskatchewan capital should have the honor. We think that after Regina, Edmonton should make an effort to secure the following Dominion Fair held in the West.

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PROF. J. B. REYNOLDS,
of the Ontario Agricultural College.

Mr Reynolds is an authority on soil physics, and has on several occasions contributed very able articles for the "Review." We hope in the near future to be still more favored by articles from his pen.

BEST FAT STEER WINS \$200.

The Brandon Winter Fair is to be held at Brandon from February 19th to 21st, 1908, and we have received word that a special cash prize of not less than \$200 will be offered for the champion fat steer, any breed or

grade, four years of age or under. Now is the time for those who intend to compete to begin and get animals in shape. The prize offered is an excellent one, and especially so when it is considered that the winner would naturally, in addition, have won first in his respective class.

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A SPECIAL ISSUE.

We have received a copy of the special "Majority Number" of The Weekly Live Stock Report, published at Chicago by John Clay (senior member of the firm of Clay, Robinson & Co.) which is a highly creditable specimen of live stock journalism. The special number above referred to commemorates the twenty-first anniversary of the founding of the firm of Clay, Robinson & Co. The front and back covers are beautifully executed in colors, the frontispiece being one of the handsomest live stock pictures we have seen in some time, showing a beautiful Jersey cow, with background of meadow and river, all reproduced in natural colors. Insides of the covers are devoted to a historical sketch of the firm mentioned, with roster of employees and the year in which they became connected with the firm. The body of the paper is made up of interesting and useful matter, including a valuable article by A. S. Alexander, V.S., on the "Need of Persistency in Breeding"; a fine descriptive article by John Clay on "The Sea and the Selkirks," illustrated with some splendid photographs of mountain scenery, together with other special articles, illustrations, etc., the whole making a very fine issue, and one which does great credit to both The Weekly Live Stock Report and the firm of Clay, Robinson & Co.

VALUE OF A PURE-BRED SIRE.

A few poor cows may do little permanent harm to the dairy herd, but a poor sire will do untold damage. Frequently dairymen hold the penny so close to the eye it is impossible to see the dollar a little farther off, and this is just what a man is doing who has a good dairy herd of grade cows and thinks he is economizing by buying a poor or even common sire.

If the good pure-bred sire improves the milking capacity of his daughters only one and one-half pounds of milk at a milking, above the production of their dams, this would mean an increase of 900 pounds of milk for the ten months or 300 days an ordinary cow should give milk. The daughter would also be a much more persistent milker, that is, would give milk for a longer time in the year, and she would regain her flow of milk better after an unavoidable shortage of feed as in a summer drouth. These daughters may certainly be credited with 1,000 pounds more milk per year than their dams produced. At the low estimate of \$1 per 100 pounds, this extra amount of milk would be worth \$10 per year. The average cow is a good producer for at least six years, or until she is eight years old. It will on the average be four years after purchasing the sire before his first daughters will have brought in the first extra \$10. Eight dollars and twenty-three cents kept at compound interest for these four years at 5 per cent. will equal \$10, so the daughter's improvement or increase of income the first year is worth \$8.23 at the time her sire is purchased.

If the heifer calves are to be raised for dairy cows there is absolutely no business or reason on earth for keeping a scrub bull. The dairymen who think there is pay a heavy price annually for maintaining that tradition. The scrub bull is the most expensive and extravagant piece of cattle flesh on the farm. He does not stop at being merely worthless, but will lose the farmer the price of two or three good bulls every year he is kept. The dairyman could not afford to keep a scrub bull if the animal were given to him, if he were paid for boarding the beast and given a premium of \$100 per year for using him. The presence of the scrub in so many Illinois herds—many times without a single qualification except that he is a male—is an offense and disgrace to the dairy business and a plain advertisement of the dairyman's thoughtless bid for failure. The only thing on earth the scrub sire is good for is sausage, and it is high time that this plain and simple truth was given practical acceptance on every dairy farm.

By all means get a good dairy sire if you have to sell two or three cows to do it. The improved sire is without question the most economical investment in any dairy herd.

WILBER J. FRASER,
Chief of Dairy Husbandry, University of Illinois.

A SURE CURE.

A ranchman living up in the North Park was taken suddenly ill. His family in great alarm, not knowing what to do, sent for a neighbor who had a reputation for doctoring cows. "Can't you give father something to help him?" asked one of the sons. "Well, I don't know nothin' about doctorin' people." "You know more than we do, for you can doctor cows. Now what do you give them when they are sick?" "Well, I allers give epsom salts. You might try it on him." "How much shall we give him?" inquired the son? "Well, I give cows just a pound. Your father is a quarter as big as a cow—give him a quarter of a pound."

Be sure that the honors you are striving for are not really dishonors.

Agricultural Scholarships

The government of the Province of Saskatchewan is offering liberal scholarships to encourage attendance from the province at either the Ontario Agricultural College or the Manitoba College. For particulars address the Department of Agriculture. A. P. KETCHEN, Deputy Commissioner.

Frank G. Simpson.

A.T. Hepworth.

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GRAIN GROWERS' GAZETTE

THE OFFICIAL ORGAN OF THE SASKATCHEWAN GRAIN GROWERS' ASSOCIATION

VOL. 3

REGINA, SASK., SEPTEMBER 1907

No. 8

PUBLISHERS' NOTE

Under special arrangement with the Saskatchewan Grain Growers' Association, the pages devoted to the GRAIN GROWERS' GAZETTE are entirely under the editorial management of that Association, and the publishers of FARM AND RANCH REVIEW do not therefore, hold themselves responsible for the views expressed therein.

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JOHN M. MILLER, INDIAN HEAD
Chairman of Committee

All matter intended for publication in the Grain Growers' Gazette must be sent to the above.

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FARMER JONES AND THE SAMPLE MARKET.

The grades are nominally fixed by law, but to a great extent by the Chief Inspector and Standards Board as they interpret the law.

Section 71 of the Inspection Act provides that "Inspectors shall grade in accordance with the Act and standard samples shall be made in accordance therewith for the purpose of grading and surveys."

Section 73 provides that "The inspector shall furnish to any person the official samples as established un-

der the Act," and if Farmer Jones will call into the inspector's office in Winnipeg he can there see the samples since the present Act came into force.

The Chief Inspector told how those samples were made at the conference of the representatives of the Grain Growers' Associations and others interested in the grain trade in Winnipeg on Feb. 15th, 1904, and later given as evidence before the Royal Grain Commission: "As the samples of the cars are being inspected, and whilst the sample is on the table before him, the deputy inspector throws a handful into a pail marked the same grade as the car inspected. This keeps before us a continuous average of each grade. At the end of each month the average for that month is retained separately. By the month of November these averages are sent out as the standard samples to the different exchanges in the East, Liverpool, London, Bristol, and to every party or interest making a request for them. These classifications or grades resolve themselves into such well-defined lines that the grade of one year represents the grade of another as closely as it is possible for the crop of one year to duplicate that of another."

Section 80 provides that "when grain shipped from any elevator is being systematically reduced in quality below the general average quality of the grain of similar grades in the bins of the public elevators, the Chief Inspector shall instruct inspecting officers that no such grain shall be allowed to pass inspection except at a lower grade."

Farmer Jones will see that there is relatively a poor, good and extra good 2 Northern or any other grade.

Since the sample sent to the different grain exchanges is the average of the grade, and the sample that fixes the price and on which business is transacted, and is better than the poor or minimum quality required to get into a grade, the farmer on the average receives just as much for his wheat selling on grade as he does by selling on sample. To illustrate this we will suppose he has five cars of 2

Northern wheat, one is of the same value as the standard sample, two of them are worth one and two cents more respectively, and two of them are worth one and two cents less respectively, and that wheat is selling for seventy cents per bushel. Under our present system he would get seventy cents per bushel for it all, irrespective of quality, or for five bushels, one of which was from each car, he would get \$3.50. If he sold these five cars on sample he would get 68, 69, 70, 71 and 72 cents per bushel respectively for each car, or for five bushels, one of which were from each car, he would receive \$3.50.

Farmer Jones says "we lose two cents per bushel on all our wheat" under the present system of selling. If he were to sell this wheat which is better than the minimum qualification for the grade, does he suppose for a moment he could get anyone foolish enough to pay him as much for the residue, or for the grade before it is skinned, as they do as present (where the best quality is mixed with the poor)? They would pay, according to his figures, four cents per bushel less for the residue, and as that would be the sample that would fix the price in the world's markets, we would receive four cents per bushel less for all the qualities of a grade. This was the effect in the past.

As I pointed out in the previous article, in order to have a market in which there would be more competition than we now have, it would be necessary to change the laws and allow mixing and special binning. As a result of this, previous to when it was stopped by the Act of 1901, our wheat was selling at much less than its actual value as it came from the farmer. The London Corn Exchange passed a rule that Duluth inspection was to receive a premium of three cents over Manitoba on contract wheat. That is to say, if Farmer Jones made a contract to deliver, say, 1 Northern wheat to a member of the London Corn Exchange, he could deliver Manitoba or Duluth on it, but would have to pay three cents per

bushel for each bushel of Manitoba delivered. If Farmer Jones followed the English press reports of the Royal Grain Commission, he will have seen the statements of the English millers, that owing to the confidence they now have in Manitoba inspection they were willing to give a shilling a quarter (or three cents per bushel) more for Manitoba inspection than for Duluth of the same wheat and grade, so that Farmer Jones is now receiving six cents per bushel more than he would, to go back where he wants to, and besides this he would be out the cost of mixing, mixers' profits, holding up of transportation, stop-over and switching charges, etc.

Farmer Jones will see from this that the making of Winnipeg a sample market of any more practical value in the way of competition than it now is would result in a loss to him and all producers of wheat so long as the business of handling and selling is carried on as it is at present.

There is nothing to prevent Farmer Jones selling his wheat on sample if he chooses. Section 49 of the Inspection Act provides that "Nothing in this Act shall prevent any person buying or selling grain by sample, regardless of its grades." If he can get more money for it in that way he should do so, and prove that a sample market is a good thing for the rest of us.

Too many lose sight of the fact that grades are classified samples, and selling on grade is simply selling on sample, with the added benefit that the purchaser and seller have an independent, uninterested, expert tribunal to classify and set the value of the different samples for them.

I am in favor of a sample market where conditions are such that selling on sample would be a benefit to the seller, such as it is at Liverpool for instance.

I was present at Winnipeg at a conference of the representatives of the Grain Exchange, Manitoba and Saskatchewan Grain Growers' Associations and the transportation companies when this was discussed at

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much length. All the speakers for the Grain Exchange supported the establishment of an order point and sample market in Winnipeg, while all of those speaking for the Grain Growers' Associations opposed it. The executives of the associations have always opposed it, and such men as Motherwell, Partridge, McQuaig, McKenzie, will be surprised to learn from Farmer Jones that they have been acting "in the interest of the grain men and transportation companies." Very likely they will think that Farmer Jones is acting "in the interest of the grain men and transportation companies." The readers of this article can judge for themselves what attitude he has assumed in discussing the question.

R. C. SANDERSON.

CHANGE IN STORAGE RATES AT FORT WILLIAM.

The Canadian Pacific Railway Company have announced that a change will be made this fall in connection with the storage of wheat in their elevators at Fort William. Up to the present time shippers have been required to pay $\frac{3}{4}$ c. per bushel for the first term (not to exceed 15 days), and $\frac{3}{4}$ c. per bushel for each succeeding term of thirty days or for any portion of this term. The Grain Growers' Association objected to the last portion of this arrangement, and asked the railway company to levy a per diem charge after the first or subsequent full term. The company have recognized the justice of the request, and from now on shippers will have to pay $\frac{3}{4}$ c. per bushel for the first term and one-thirtieth of a cent per bushel per day after the expiration of the first term or subsequent full term of thirty days, for any fractional part of a term. It is likely similar changes will be made by other companies operating elevators at the lake ports.

RIGHTS OF SHIPPERS ORDERING CARS.

Editor Farm and Ranch Review and Grain Growers' Gazette.

In reply to a letter I recently wrote to the Warehouse Commissioner concerning the difficulty farmers had in getting cars of the sizes they wished, I received the attached. Will you be so good as to publish it?

Its importance speaks for itself. Hitherto if a farmer had a car allotted him of a size he did not want—the smaller man, for instance, receiving a car too large for his requirements—his order was cancelled and he had to try again by a new application, of course at the bottom of the list. You will note this is no longer the case, his name remaining on the book till he gets a car "according to his requirements," as the act says.

WALTER SIMPSON.

Walter Simpson, Esq., Regina, Sask.

Dear Sir,—Replying to your letter of the 27th inst., I beg to say that all station agents on the Canadian Pacific Company's lines have been instructed by the General Superintendent here that any applicant can lawfully order any of the standard sizes of cars to meet his requirements in use on that company's lines. An applicant, therefore, can order a 40,000, 60,000 or 80,000 lb. box car by notifying the station agent at the time of his application which of the above sizes he requires, and his order will stand good until filled by the size of the car ordered. Owing to the required size not being on hand, the first applicant may have his name skipped over, but his order stands till filled or legally cancelled.

The railway company's freight engines are not expected to do regular yard shunting owing to the delay it would entail. Most of the station

agents, however, endeavor to get the sizes sorted out as soon as they come to hand to meet the applicant's requirements.

An applicant can get the station agent to state in the remarks column of the car order book the size of car required, thus: 40m, 60m or 80m, as the case may be.

According to law, "Any person having grain for shipment in car lots or who is the operator of an elevator, warehouse or flat warehouse, shall be deemed an applicant for cars under the Act."

The "any person" embraces any two persons. Smith and Jones may neither of them have a car lot of grain for shipment. Each, however, may have half a car lot. Smith and Jones therefore would order a car in their joint names; it would be loaded by them jointly; they could have a partition placed across the car at one side of the car door. Smith's grain being in the "brake end"; Jones being in the "no brake end." The car on being loaded would be billed out in the names of Smith and Jones. The returns would come to Smith and Jones, and Smith and Jones would have to sell the car together. Many hundreds of farmers ship in this way.

I am, sir, yours truly,
CHARLES C. CASTLE,
Warehouse Commissioner.

The following is another letter from the Warehouse Commissioner dealing more fully with one of the most important points under discussion:—

Walter Simpson, Esq., Grain Growers' Association, Regina, Sask.

Dear Sir,—Answering yours of the 13th in reply to mine of the 29th ult., re sizes of cars which can be ordered by applicants. In October, 1905, and again in October, 1906, the C.P.R. General Superintendent, in my presence, dictated a message to all agents to the effect that applicants might order any of the standard sizes of cars they required, but that as the company's freight engines could not do yard shunting work, applicants would have to wait their turn for these cars, at least until such time as the size of car ordered could be spotted at the point on the siding designated by the applicant in his application for a car. This order is in effect to-day, and has been since last October, and where agents are not living up to it they should be reported to me at once, because it is clear they do not understand their duties. However, so that there can be absolutely no mistake about the matter this fall, I am sending a letter to each agent in the Manitoba Grain Inspection Division on this particular point, among others.

I am glad to hear you are doing such good work in the holding of your meetings.

I shall be glad at all times to give you any information within my power.

In conclusion let me add that nearly all the cars furnished by the C. N. Railway are 1,000 bushel cars, this company having very few cars of either a larger or smaller capacity, and most of these would be foreign cars.

I am writing the agents at Craik, Davidson, Bladworth, Hanley and Dundurn specially, as you brought the matter to my notice, and also to the General Superintendent of the C. N. Railway.—Yours truly,

CHARLES C. CASTLE,
Warehouse Commissioner.

RECORD GRAIN CARGO AT IPSWICH.

Last month an enormous bulk of barley, over 20,000 qrs., was brought to Ipswich in one vessel, the Magdalena, a four-masted barque, that had arrived after a passage of 140 days from San Francisco. Not only was this a record cargo, but the Magdalena, which belongs to Bremen, is also

the largest ship that has visited the Orwell port. An agricultural writer has very appropriately seized upon this fact to point out what a cargo of this kind means in relation to the land. Having regard to the rotation of crops, a fourth of the land going to barley, it would need 16,000 acres to produce enough barley to form the bulk of the Magdalena's cargo, or, putting it another way, 80 200-acre farms. Of course, it is argued on the other hand that such a ship and cargo employ a large quantity of labor, but nothing like to the extent that work would be found for our home population were the cargo grown in England instead of abroad. Twenty thousand quarters of barley would find work for 150 men on the land for six months out of the twelve, to say nothing about thatchers, painters, blacksmiths, carpenters, shoemakers, tailors, and shopkeepers who would be incidentally employed. There are two pictures. Which should this country prefer?

WHEAT AND FLOUR IMPORTS INTO UNITED KINGDOM DURING THE LAST 25 YEARS.

The total amount of wheat and flour imported into the United Kingdom for the last twenty-five years was 1,689,964 and 443,269 cwts. respectively, or an average of 67,798 cwts. of wheat and 17,730 of flour.

ORGANIZING A LARGE ELEVATOR COMPANY.

The largest farmers' co-operative enterprise ever attempted in Minnesota will try to be arranged in Minneapolis on September 5th, when the representatives of over two hundred farmers' elevator companies will meet and try to complete a merger already partially arranged. It will mean the combination of over twenty thousand western farmers.

WHEAT AND CLIMATE.

Schindler has shown that the size and weight of the berry of wheats of different localities depend upon the length of the vegetation period, and more especially upon the length of the interval between blossoming and ripening. This, as he explains, is in accordance with the development of the grain as it matures, which is as follows: The glumes or chaff of the berry are first in order of growth; following these, the outer fruit coating and then the inner true seed coats develop, then follows the endosperm, which is the richest in gluten, and later still the storage tissues in the interior of the berry are formed. In

regions with a moist, warm climate the fruiting period is prolonged and abundant quantities of starch are formed in the large leaf surfaces which such a climate produces on the wheats. The starch thus formed is all transferred to the berry, which is thus filled up as is shown externally by the broadly expanded form. Such a wheat is relatively rich in carbohydrates and poor in protein. On the other hand, a hot dry climate shortens the time for starch transference, and the native wheats of such a climate are in general richer in protein and lower in carbohydrates. As illustrations of this, he shows that the climate, and especially proximity to the sea, closely affects the amount of gluten in the wheat. The insular climate of England produces a robust wheat having large ears with numerous kernels, but with less gluten than the wheats of Eastern Europe. According to this author, the wheats of England and other countries having a similar climate seldom contain more than 10 per cent. of gluten; while in the warm temperate zone, in Eastern Europe, as well as in the Western States, in Southern Russia, Roumania, and Turkey, and in the sub-tropical zone the gluten content may even exceed 20 per cent.—American Miller.

TO THE MEMBERS OF THE S. G. G. A.

I wish to draw to the attention of every grain grower that in the "Farm and Ranch Review" there are several pages devoted to the Saskatchewan Grain Growers' Association, making it our official organ. In these pages there are articles on current events and topics of interest to all grain growers.

It is a means of disseminating the views held by the members of our Association, and every member should be a subscriber and should get his friends to take it as a means of keeping the work of the Association before the public and extending our membership.

R. C. SANDERSON, Act. Sec.

EXTRAORDINARY MILLING TEST.

In the near future there will appear in the Farm and Ranch Review a milling test of Western Canadian wheat, before and after bleaching by being exposed to a heavy rainstorm, made by the Howard Wheat and Flour Testing Laboratory of Minneapolis for the Saskatchewan Grain Growers' Association, by request of the Royal Grain Commission. The result of the test is most extraordinary, and should alone be worth the price of a year's subscription to the paper.



Cutting Alfalfa and Western Rye Grass at Fairfield Bros., Lethbridge

Hearth and Home

"MAKING GOOD."

My boy, you think that all you have to do is "make a hit";
To catch the public eye and ear, then evermore be "it";
You think one stroke sufficient for one lifetime—may be two;
That once a man is famous, there is nothing left to do.
I hate to wake you, sonny, from your iridescent dream,
And keep your skiff from drifting any further down the stream;
But here's what I've discovered: He who's done the best he could
Is merely obligated just to keep on "making good."

One little fight's a promise that you'll spread your wings and soar;
One decent job's an earnest that you'll do a thousand more;
One leap to public favor is a pledge that you will stay;
You can't do that unless you make a new mark every day.
The jump you made to wealth or fame will do less good than harm,
If, by your desultory style, you prove "a false alarm."
One well-directed arrow never made a Robin Hood;
One winning stroke but binds you to the task of "making good."

This world was not constructed for the lazy man of dreams;
One flash is not a nugget—gold is constant with its gleams:
The world keeps looking higher than the level you've attained,
And thinks you retrograding till 'tis certain you have gained;
No stand-still will it tolerate; slide back, and you will see
Your name among the "has-beens" as a harmless "used-to-be."
The standard you established when you did the best you could
Was but your affidavit that you'd keep on "making good."
—Strickland W. Gillilan, in Success Magazine.

A TRESPASSER.

By Honore Willsie.

The snow had disappeared from the valley, hedged upon three sides by mountains, but far up in the slopes there were still great white acres of it. Grigsby worried a great deal about these snow patches. At night, when the camp was still, he lay awake hour after hour considering the matter.

The New York stockholders who had sent the young mining engineer out to explore and test the mine had given him no information as to how, when or where to protect his workings. On Tuesday of the previous week a great wedge of snow and ice had loosened from the peak, had hurtled down the mountain side, gathering speed and size as it went, and had killed Jim Grady, the foreman, without even stopping to drop him after the deed was done.

"The oldest inhabitant" told Grigsby that such would probably be the programme until spring had set in thoroughly.

So for several nights Grigsby worried. Then on a certain cold, drizzly morning he called the men from the mine and set them, one and all, at work on his idea. The idea consisted of a great "V," with its apex turned up the valley, and when completed the engine house over the mine was to set snugly in the angle of a great fence of logs and boulders. It took three days to complete the idea, and when it was done Jack Grigsby squared his handsome shoulders, set his teeth firmly on the amber stem of his pipe

and said: "There, by gum! I'd like to see a snowslide harm that!"

The oldest inhabitant, who stood by Jack's side, grinned.

"You've put a lot of work on that thing," he said.

"Well, it's worth it," replied Jack.

"Huh," answered the old miner, "I could 'a' told you something that wouldn't 'a' been any work at all and would 'a' been just as effective as that!"

"A nice time to be telling me that!" exclaimed Jack. "Well, what is it?"

The old man pulled a dejected-looking envelope out of his pocket, after a long search found a stubby pencil and made a few marks on the envelope back, then walked over to a tree and tacked the paper up on the trunk. Grigsby followed him curiously. On the envelope was written:

"Avalanches are requested not to trespass here."

Jack roared. "Well, you're a great joker."

The old man grinned, but shook his head. "Just as good as your wedge," he answered. "You ain't seen a real slide yet. You want to move your mine, that's what you want to do."

Grigsby looked a little troubled. "The president of the company and his daughter are due here this afternoon, but the weather has been so snappy lately I guess we are safe."

Then to himself as he walked away, "I'd give the world and all to see Madge, but"—Then he looked at the V-shaped rampart. "Gee, that would stand anything," he said.

The visitors were not expected until late in the afternoon, but it was only 1 o'clock when the short, fat millionaire and his dainty, slender daughter dismounted from their horses and left them at the group of shacks on the mountain side. Then they descended into the gulch, where the shaft opened.

"Now, remember, Madge, no nonsense," the president was puffing. "These young engineers are all right in their places. But their places are not as sons-in-law of mine. Seems to me you've been showing rather a lively interest in young Grigsby."

Madge sniffed, but made no reply to her father's admonitions. They were an old tale, whose moral did not in the least interest her. Her father took the chaperonage of his pretty daughter very seriously.

Jack Grigsby ran toward them with bared head and outstretched hand, but the president had little time to waste on greetings.

"What in thunder is that mountain of rubbish built around the plant for?" he demanded.

Jack explained the mission of his cherished idea, but the president shook his head.

"Pooh, pooh!" he scoffed. "Fearful looking mess. Better tear it out. Don't need that to keep off a little snow and ice."

Madge interposed tactfully. "Oh come on," she cried. "I want to see everything."

The three walked slowly over toward the engine house, Jack explaining eagerly.

"Where are all the men?" asked Madge.

"In the mine, even the engineer. We are having some"—

The oldest inhabitant grasped Jack's arm.

"For heaven's sake," he gasped, "ring the bell. It's comin'."

The three followed his gaze. Far up the mountain, at the beginning of the valley, a roar, and with the roar it seemed as if the whole side of the mountain was sliding down into the valley—a great, gray mass, that gathered to itself all that barred its path,

huge trees, cabin-big stones, and always with a roar, increasing in volume to the din of a thousand trains.

"The men are safest in the mines," Jack cried.

He grasped Madge's arm, but the oldest inhabitant thrust him one side. "Manage the old man," he said; "I'll take the girl."

Then with his arm about Madge he ran with all his strength up the mountain side. Grigsby seized the president's arm.

"Come!" he cried

The president started out bravely, but his weight told, and with the third step he stumbled and fell. With each heart throb the speed of the snowslide was lessening their chances. Jack tugged at the heavy old man. Now he could see the boulders that bridged the front of the avalanche, and now it had taken the very tree to which was pinned the fluttering trespass warning. With a superhuman effort Jack flung the president out of harm's way. Then he sprang himself, scarcely

"Great smoke, man, look at your arm!" he cried.

Jack glanced at the blood-stained sleeve from which the arm dangled helplessly. "I know it," he answered cheerfully. "A tree top slapped me as the slide passed, but I don't care; every man is safe!"

The president stared at the white, dirt-stained face. "Madge," he said, "I'd like to have you marry this sort of man."

"That's what Jack and I hoped," answered Madge, smiling even as she moaned over the wounded arm.

"That's settled, then," said the president briskly. "Now let's see what I can do for that arm." And if he noticed that the well arm was encircling Madge's waist he did not mention the fact.

"I KEPT THE LIGHT BURNING."

A pathetic story is told of the wife of the keeper of a lighthouse on a lonely island, who saw her husband



AN OUTING

On the "mighty" Saskatchewan near Prince Albert.

noticing a heavy blow from a whizzing tree top.

In another moment the avalanche was a thing of the past, and a great swathe down the centre of the valley was polished smooth as a macadam road. With a single glance to see that Madge was safe, he called to the two men and ran to the shaft opening, over which the slide had passed. It was choked with a mass of logs and ice.

"Find ropes," Grigsby cried—"anything! The Lord knows how many were in the shaft!"

It was an hour of terrible toil, but somehow the three accomplished the task. With hands torn and bleeding, panting and half-crazed with fear for those below, they toiled unceasingly—the oldest inhabitant, with the strength of a man twenty years his junior, his white hair wet with perspiration; Grigsby, with pale, drawn face, and the president, peeled down to vest and trousers, panting with the best of them.

Grigsby called down through the opening, and the answer came back faint, but cheerful:

"All safe! What's the rip? Send us down a rope."

When all were safe the president climbed to Jack's cabin and sat down heavily. Jack and Madge followed. He looked at Jack closely.

and his two assistants swept away by breaking ice-floes, leaving her alone to face a long and dreary winter, with the memory of the terrible and tragic scene which she had witnessed. Months after this tragedy the government supply ship reached the island on its semi-annual visit. The men on the vessel were accustomed to stories of privation and heroism, but there was something that gripped at their hearts a little harder than usual when they learned how much she had suffered. "How did you ever manage to get through the winter?" "I hardly know," she replied, with a suppressed sob that had heart-break in it; "I hardly know; I only know that I kept the light burning."

"Oh, those faithful lights! None but God knows what they mean. They are not for sailors alone. Sometimes they shine from farmhouse windows; sometimes down city streets; sometimes from human lives. Out on the plains there is a certain gate-post where a lighted lantern has hung every night for seventeen years, ever since a boy disappeared from home. The father, now old and sorrow-stricken, carries it out every night, no matter how great the storm, praying that it may guide his boy home."

Live your love and it will need no interpreter.

COURAGE MEANS SUCCESS.

There's the courage that nerves you
in starting to climb
The mount of success rising sheer,
And when you've slipped back there's
the courage sublime
That keeps you from shedding a
tear.

These two kinds of courage, I give
you my word.

Are worthy of tribute,—but then,
You'll not reach the summit unless
you've the third,—
The courage of try-it-again!

THE AGGRIEVED CHILD.

While too much notice should not
be taken of children's moods, it is sel-
dom wise to regard an incident as
closed if a child is left with a sense of
injustice. The mother fears to com-
promise her dignity, perhaps, by re-
sorting to explanation or argument,
and prefers to wait for what she calls
the child's sulkiness to blow over.

Blow over it does because other
things take up his attention; but the
impression may remain, joining with
other impressions of the same sort, to
weaken his trust in his mother's kind-
ness and good sense. Without en-
couraging the child to dispute every
slightest command, it is possible to
note the cases where discontent and
dissatisfaction may have, from his
point of view, some reasonable
ground, and to inquire into them,
later, if not at once, and set the matter
straight.

When the child is permitted to
speak freely, in the softened temper
which the permission almost always
brings, the disclosures are often very
touching. To-day's orders, perhaps,
seemed to the childish mind inconsis-
tent with yesterday's. Or rudeness
was abruptly punished, when only a
clumsy joke was meant. Or the ob-
stinate refusal to explain some tena-
cious purpose hid a cherished "sur-
prise."

If no such misunderstanding is dis-
covered, and if the child was actually
as much at fault as the mother sup-
posed, it may still be true that the
fault was not so heinous in childish
eyes as in mature ones.—Congrega-
tionalist and Christian World.

VALUE OF APPLES.

Apples breed optimism, energy,
cheerfulness and ambition. Life would
be but a scurvy proposition, especially
on shipboard and the arctic regions,
were it not for the gift of the apple.
It is the most universal of fruits and
the cheapest. The apple is decorative
in color and outline, delicious to the
palate, salubrious to the liver. Its
juices prolong youth and retard the
onset of the cider years by dissolving
the mineral deposits that form along
the blood channels. An apple will
often cure the internal uneasiness
caused by a strong cigar. It is the
best keeper among fruits and at win-
ter's end the sole pledge of summer in
the bins of many families.—Charles E.
Tomlinson.

BUYING A PAPER.

Here, boy, let me have a paper."
"Can't."
"Why not? I heard you crying
them loud enough to be heard at the
City Hall."
"Yes, but that was down 'tother
block, ye know, where I hollered."
"What does that matter? Come
now, no fooling. I'm in a hurry."
"Couldn't sell you a paper on this
here block, mister, cos it b'longs to
Limpy. He's just up the furdest end
now. You'll meet him."
"And who is Limpy? And why does
he have this block?"
"Cos us other kids agreed to let him
have it. This block where we are has
the offices all along, and the poor chap

is that lame he can't git around lively
like the rest of us, so we agreed that
the first one caught sellin' on his beat
should be thrashed. See."

"Yes, I see. You have a sort of
brotherhood among yourselves?"

"Well, we're goin' to look out for a
little cove what's lame, anyhow."

"There comes Limpy now. He's a
fortunate boy to have such friends."

The gentleman bought two papers
of him, and went on his way down
town, wondering how many men in
business would refuse to sell their
wares in order to give a weak, halting
brother a chance in the field.

GOOD ADVICE.

Sydney Smith cut the following
from a newspaper and preserved it for
himself: "When you rise in the morn-
ing, form a resolution to make the day
a happy one to a fellow creature. It
is easily done. A left-off garment to
the man who needs it, a kind word to
the sorrowful, an encouraging expres-
sion to the striving—trifles in them-
selves as light as air—will do at least
for the twenty-four hours.

And, if you are young, depend upon
it, it will tell when you are old; and,
if you are old, rest assured it will
send you gently and happily down the
stream of time to eternity. By the
most simple arithmetical sum look at
the result. If you send one person,
only one, happily through each day,
that is three hundred and sixty-five in
the course of the year. And suppose
you live forty years only after you
commence that course of medicine,
you have made fourteen thousand six
hundred beings happy, at all events
for a time."—Ex.

A BAR OF YELLOW SOAP.

A bar of yellow soap will—
Stop a mouse hole effectually.
Make bureau drawers and windows
which are inclined to stick work
smoothly.

Take the pain from a burn.
Cut up fine (a quarter of a bar) and
dissolved in strong hot borax water,
clean plated silverware. Let soak two
or three hours in the solution and
little rubbing will be needed.

Combined with brown sugar, bring
painful swelling to a head, and draw
out a splinter from under the nail.

Rubbed on a nail, prevent the wood
through which it is driven from split-
ting. It is often used by carpenters,
who drive the nail through the bar of
soap before using.

Mixed with stove blacking, lessen
the labor of applying and improve
result.

Stop a leak in a boiler, in emer-
gency cases

Quickly remove the odor of per-
spiration.

Serve as a substitute for wax to
point darning yarn.

The inner wrappers are useful to
clean flat irons.

HOUSEHOLD HINTS.

Set a dish of cold water in the oven
to keep the bread from burning while
baking.

Lemons will keep fresh if put into
an uncovered jar of cold water. Change
the water every two or three days.

Salt will remove stains from oil-
cloth table cover. Rub hard with a
flannel dampened, not wet, with water.

Baking soda rubbed hard on tin-
ware with a piece of damp paper will
clean and polish it.

Cut off the top of an old soft shoe
and sew the leather between two
thicknesses of cloth, and you can iron
without burning your hand.

If the lamp-wick will not turn up
easily and evenly, pull out three or
four threads lengthwise in different
parts of the wick. Try it in your oil
stove.

A Refreshing Drink at any Hour

is a tea that you will enjoy drinking. You will
like the smooth, rich flavor, the delicate fra-
grance and aroma.

It's different from other teas, because it's better.

Nearly all teas have a harsh or slightly bitter
taste, which is due to imperfect blending and
leaf that is not properly matured.

GOLD STANDARD is entirely free from faults of this
kind, because it is carefully selected and blended
perfectly

It is a combination of the finest Assam and Ceylon
Teas, blended so that you get the good quali-
ties of both.

The flavor is smooth and rich, delicious to taste
and refreshing.

The reason is—perfect blending.

We Will Send You A Cook Book

If your grocer does not have GOLD STANDARD
TEA send us his name and address and we will
send you our 80 page cook book free.

The CODVILLE CO., Ltd.

DEPT. D

WINNIPEG - MAN.

FRIENDS AFTER A FIGHT.

A fine Newfoundland dog and a mastiff had a fight over a bone, or some other trifling matter. They were fighting on a bridge, and being blind with rage, as is often the case, over they went into the water.

The banks were so high that they were forced to swim some distance before they came to a landing place. It was very easy for the Newfoundland dog; he was as much at home in the water as a seal. But not so with poor Bruce. He struggled and tried his best to swim, but made little headway.

Old Bravo, the Newfoundland, had reached the land, and turned to look at his old enemy. He saw plainly that his strength was failing, and that he was likely to drown. So what should he do but plunge in, seize him gently by the collar, and, keeping his nose above water, tow him safely in to port.

It was curious to see the dogs look at each other as soon as they shook their wet coats. Their glances said plainly as words: "We will never quarrel any more."—North Carolina Presbyterian.

A VERY KIND INTRODUCTION.

Did the reader ever see a dog perform the ceremony of introducing a human friend? The "Listener" has himself seen the thing done, in a way, but never so plainly and prettily as a friend of his lately witnessed it—the friend himself being the introduced "party." The friend—call him Mr. J.—lives in Roxbury. For a near neighbor he has a man who keeps a carriage and also a fine setter dog. Mr. J. does not enjoy the acquaintance of the neighbor, but has come to be on excellent terms of friendship with the dog. Every day Mr. J. sallies forth at about the same hour. Every day he meets the dog, whose salutations have gradually passed from mere friendly formalities to affectionate greetings. Yesterday, as Mr. J. came out of his house, he found the dog—who always, when the carriage starts, goes circling about the horse's head, barking with joy—waiting for him. The carriage, with the horse attached, stood waiting for its occupant. The dog at once came bounding up to J—, and then went bounding back to the horse. He licked the horse on the nose, and came back to J— again, and again returned to the horse, evidently laboring under the stress of something that he wanted to say or do. It was quite plain, in fact, that he was doing his best to introduce the man to the horse, and make them friends too. So J—, whose big heart can include horses as well as dogs, yielded; he went up to the horse and patted its head and rubbed its nose. And then the dog's satisfaction and gayety were simply inexpressible. He gyrated about until it seemed as if he were in danger of swallowing his own tail; and his affection both for the man and for the horse was plainly greatly increased by the consciousness that now they knew each other.

It is astonishing, gentle reader, what a great deal of the joy of life a liking for animals will let us into.—"Listener," in Boston Transcript.

A LESSON FROM A POSTAGE STAMP.

"Young man, consider the postage stamp—

Its usefulness in its ability to stick To one thing, until it gets there!"

The above motto is conspicuously displayed in the office of a large lumber company located in San Antonio, Texas. It has created so much comment throughout that section of the country that the head of the company recently had one hundred thousand

copies of the motto printed and has distributed them among the young men of the "Lone Star" state.

There is a considerable amount of truth in the above quotation, which should be memorized by every young man who possesses the ambition to rise, and it should be brought to mind every day of the week. The calibre of a young man is shown by his ability to stick to a task, no matter what obstacles he may have to surmount to complete it, for, like the postage stamp, his usefulness in the world of business lies in his sticking to one thing until it is completed; in truth, the young man has to contend with an endless chain of tasks, and as soon as one is completed, he is brought face to face with a new one.

The young man who goes at the daily tasks and does not shrink from any of them is the one who will be most likely to be called, when promotion is at hand. In sticking to one thing at a time, like the modest postage stamp, is the first step on the ladder of success.—Spare Moments.

able, and, as can be seen, since all the strain and weight of the skirt comes tearing the thinnest fabric.

On waists that are worn outside the skirt band the hooks would of course be put on the inside of the waist, points in, with the eyes on the outside of the skirt band. But the principle of support is the same, and is very satisfactory. — New England Household.

"MESSENGER" STORIES.

Stories, illustrations, and anecdotes are perhaps the main features of attraction in the "Northern Messenger." But the stories are so carefully chosen that they exercise a healthy influence upon the lives of old and young. Then there are special departments devoted to Temperance, the Sunday School, and the Home. And a section entitled "Little Folks" is printed in extra large type. The paper is so popular that a vast number of Sunday Schools in Canada and the United States are

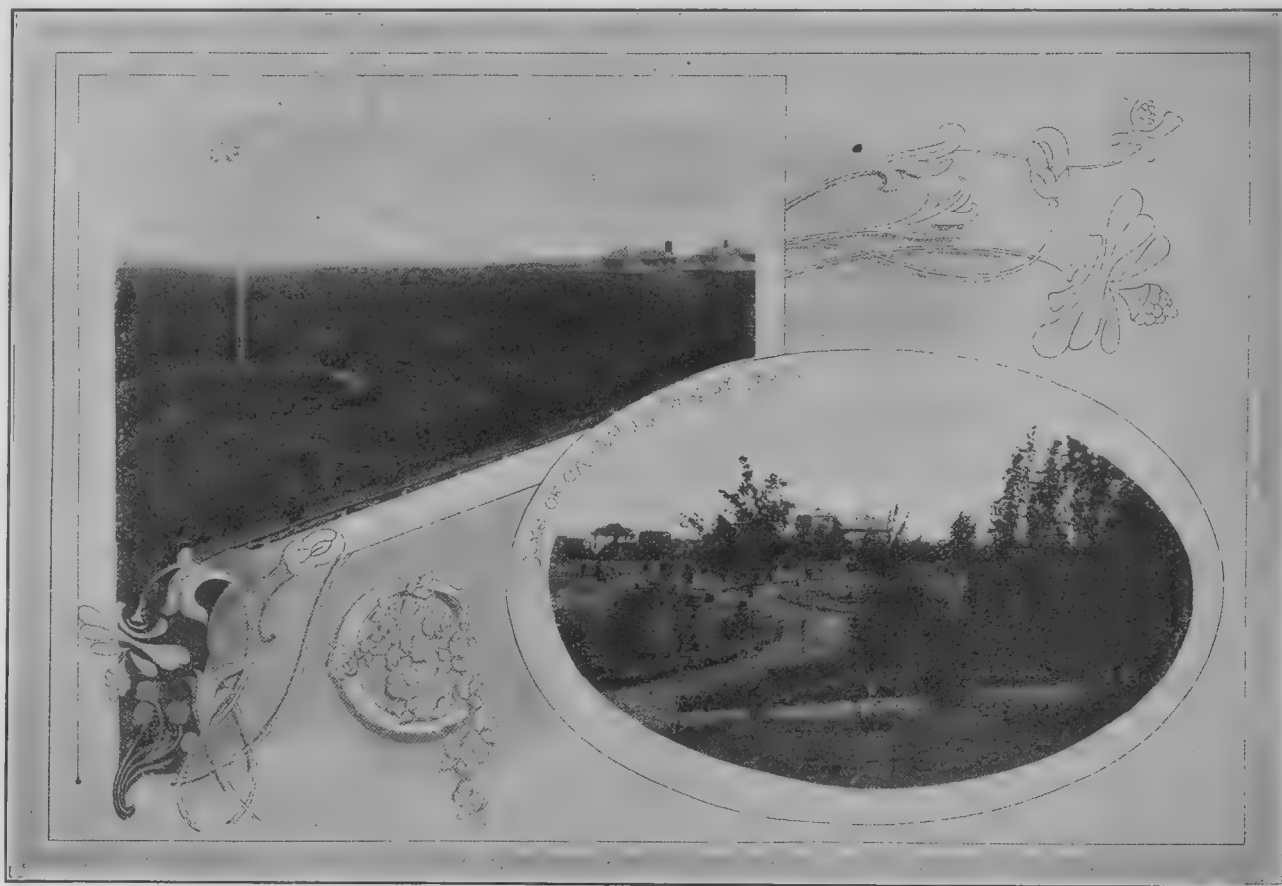
tion, cultivated crops, live stock, timber, minerals, transportation and markets, irrigation, railway lands, homestead regulations, and shooting and fishing.

It contains sixty pages, and is full of interesting and instructive reading.

WORLD WIDE ARTICLES.

A Weekly Reprint of Articles and Cartoons from Leading Journals and Reviews Reflecting the Current Thought of both Hemispheres.

"World Wide" is a marvel of interest and cheapness as a high-class eclectic; it will compare favorably with anything at several times its price. For the small sum of one dollar and a half it brings every week for a year the best articles that appear during the week in the leading British, American, and Foreign publications. Of course it appeals to the thinking element in each community, those who want to know what the world thinkers are thinking; but these



Views of the C.P.R. Gardens and Central Park, Calgary.

A DRESSMAKER'S HINT.

If you are one of the women, and do they not number legion, who find difficulty with your waists and skirts, try this, which is unfailing and as adaptable to the faculty in maintaining union between thinnest mull as to the heaviest cloth:

On the outside of every waist, exactly at the waist line, attach a piece of dressmaker's belting, at least an inch wide, to the centre of the back, leaving the ends loose. Have it fit very snugly about the waist, fastening with a hook and eye in front.

On the outside, 1½ inch each side of the centre of the back, sew large size hooks, points down and out, sewing through the goods to the belt. Then on the inside of the skirt band, at the bottom of the band, sew eyes in a standing position to hook over the hooks on the waist. Very fleshy persons, wide across the back, should use three hooks and eyes, putting one in the exact centre, the others about two inches either side. By keeping the distance the same on each garment shirts and waists will be interchange-

using it to great advantage, insuring a more regular attendance, besides extending their influence for good in the homes of their scholars. The "Northern Messenger" is probably read every week by well on to a quarter of a million people, and for that reason the price is extremely low. Samples free on application.

12-16 pages weekly 40c. a year. S.S. clubs a specialty. Prices on application. John Dougall & Son, Publishers, Montreal.

OFFICIAL HANDBOOK OF ALBERTA.

The Alberta Department of Agriculture have just issued an official handbook containing reliable information concerning the resources of the "Sunny Province." It is profusely illustrated, chiefly with agricultural views.

It deals with the system of government and surveys, taxation and government aid, education, climate, soil and surface features, natural vegeta-

tion, and as full of rare entertainment as of wisdom. It is absolutely world-wide in its interests and has no axe to grind. The annual subscription includes 1906 Caricatured, a most entertaining review of the past year.

Sample copy free of charge to any address. The annual subscription price is \$1.50, and the publishers are John Dougall & Son, of Montreal.

RECIPES.

Jellied Toast.—Cut with a cake cutter rounds out of thick slices of stale, baker's bread. Toast lightly and quickly. Butter well, sprinkle with salt, lay in a stout china bowl, cover deep in scalding milk a little salted, cover the bowl and set it in the oven until all the milk is soaked up. Have ready, and scalding hot, as many spoonfuls of cream as there are rounds of toast. Lift the edges of each piece, and pour in a spoonful of cream. on the belting, which fastens around the body, there is no possibility of Cover closely and leave in the oven ten minutes longer. Serve in the bowl.



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50 Cents

The price of a 2 oz. Bottle of

: : MAPLEINE : :

Will make two gallons of delicious Syrup with a maple flavor that experts pronounce perfect. You can obtain Mapleine at grocers or the above amount will be mailed to any address on receipt of stamps.

Our Cook Book mailed FREE with each bottle.

CRESCENT MANUFACTURING CO., 118 1/2 Jackson Street, Seattle, U.S.A.

This is the way to make an English meat pie: Take finely chopped cold beef, put in a deep baking dish a layer of the meat, sprinkle with bread crumbs seasoned highly with salt, pepper and onion if liked: repeat the process until the dish is full, pour over it a cup of stock or gravy, or, lacking these, a cup of hot water in which a teaspoonful of butter has been melted. Place on top a good layer of bread crumbs seasoned and dusted with butter; cover and bake thirty minutes, remove the cover and brown.

Apple Charlotte.—Butter a baking dish generously and line the bottom and sides with thin slices of bread spread with butter. Fill with sliced apples, put in layers and sprinkle each with sugar, a dust of cinnamon or any spice preferred and dot with butter. The bread cut for the top must be dipped into milk for a minute, then laid over the top and a plate or close fitting cover laid on. Bake two hours on a dish. The Charlotte should keep its form unbroken. Serve with hard sauce.

Cheese should never be kept near butter, milk or cream. All these things absorb the flavor of the cheese and thus spoil their own. When cooking any preparation in which milk is seasoned with salt, do not add the salt until the milk stops boiling, or it will cause the milk to curdle. It is best to add the salt after the milk is taken off the fire. The next time milk is burned take the pan off the fire and stand it at once in a basin of cold water. Put a pinch of salt in the pan, give the milk a stir and the burnt taste will almost if not entirely disappear.

The hind quarter of a lamb makes the best roast. Put it into a covered roaster, season with salt and pepper, rub with flour and baste with good sweet drippings and a very little water and cook slowly two hours. The water should have all cooked away leaving the flour browned in the pan. Brown more flour in the drippings and make gravy to serve with meat. Garnish with parsley and serve with mint sauce. Put into a tumbler a generous tablespoonful of mint chopped fine, add a tablespoonful of sugar and add more if desired. Then fill the tumbler with vinegar.

The death dealing frying pan should be banished from every kitchen. Broiling requires less time and labor, besides being far more cleanly as to kitchen and utensils. When steak is to be broiled have the pan, which should be a heavy cast one, when soapstone is not available, very hot—almost to redness. Have the steak well trimmed and pounded. The broiling pan should be three times as large as the steak and should be well wiped with a clean rag. Apply the steak and press it down with the flat side of a case knife so as to bring as much of the surface as possible in contact with the hot iron. At first it will adhere to the iron, but will loosen its hold in about forty seconds, when it should be turned over and applied to another part of the pan. After this it may be turned at will and its position changed until cooked to taste. When done put into a dish, sprinkle with salt and pepper, a very little vinegar, smear with butter and eat while hot, for it is too good a thing to admit of delay. Those who value health should never eat meat fried in grease.

RECIPES.—(Continued).

Pickled Onions.—Take the small white multiplier onions, wash carefully, cover with strong brine, set in cool place for three days. Then drain and put in boiling brine in a porcelain-lined kettle, and boil five minutes. Drain and cover with clear water. Drain and pack in glass fruit jars, and fill the jars with boiling spiced vinegar and seal immediately.

To make a tomato rabbit, take half a can of tomatoes, one-fourth of an onion, three cloves, one-third of a teaspoonful of mustard, one-half teaspoonful of salt, one-fourth of a teaspoonful of soda, and cook for ten minutes. Add one-half teaspoonful of cornstarch and strain. Add six ounces of grated cheese and when melted serve on toast or hot crackers.

Potato chocolates may not sound tempting, but they are delicious, and cannot be distinguished from chocolate creams. Boil two or three small potatoes and mash, seasoning with a teaspoonful of vanilla. To the mashed potato add powdered sugar sufficient to mould it into balls. With a hat pin dip these balls into a bowl of melted chocolate steaming over the tea-kettle and place on a buttered paper to dry.

Here is a delicious dish of carrots. Cut the new vegetables into straws like Julienne potatoes and cook in salted water. After draining season with salt, pepper and a very little onion juice, and return to the saucepan with a large lump of butter. As this melts shake till the carrots are glazed. Have ready a cupful of green peas and pour these over the carrots in an uncovered dish.

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FAMILY HERALD AND WEEKLY STAR

For balance of 1907

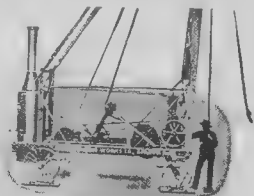
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Use your Threshing Engine the rest of the season Drilling Wells or get a Drill complete with either Steam or Gasoline Engine or Horse Power.

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Breeders of Barred White and Plymouth Rocks, S. C. White and Brown Leghorns, White and Buff Wyandottes and Buff Orpingtons. Eggs for Hatching \$1.50 per setting. During the past season we have imported nearly 300 pure bred birds from Ontario and have now one of the largest and best equipped pure bred Poultry Farms in Western Canada. Our mating list will be ready by Feb. 15. We want to send one to every reader of the FARM AND RANCH REVIEW. A postcard will bring it to you.

E. J. COOK, Manager



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Put them on yourself—common sense and a hammer and snips does it. The building they cover is proof against lightning, fire, wind, rain and snow. They cost less because they're made better, and of better material. Write us and learn about ROOFING RIGHT. Address

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Pure, Nutritious and easily digested

The COWAN CO., Limited
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50 CENTS

Will bring you the

Farm and Ranch Review

and Family Herald and Weekly Star for balance of year.

SYNOPSIS OF COAL MINING REGULATIONS

COAL mining rights of the Dominion, in Manitoba, Saskatchewan, Alberta, the Yukon Territory, the North West Territories and British Columbia, may be leased for a term of twenty-one years at an annual rental of \$1 an acre. Not more than 2,560 acres will be leased to one applicant.

Application for a lease must be made to the Agent or Sub-Agent of the district in which the rights applied for are situated.

In surveyed territory the land must be described by sections, or legal sub-divisions of sections, and in unsurveyed territory the tract applied for shall be staked out.

Each application must be accompanied by a fee of \$5, which will be refunded if the rights applied for are not available but not otherwise. A royalty shall be paid on the merchantable output of the mine at the rate of five cents per ton.

Every lessee of coal mining rights which are not being operated shall furnish the district Agent of Dominion Lands with a sworn statement to that effect at least once in each year.

The lease will include the coal mining rights only, but the lessee may be permitted to purchase whatever available surface rights may be considered necessary for the working of the mine at the rate of \$10 an acre.

For full information application should be made to the Secretary of the Department of the Interior, Ottawa, or to any Agent or Sub-Agent of Dominion Lands.

W. W. CORY,

Deputy Minister of the Interior.

N.B.—Unauthorized publication of this advertisement will not be paid for.

Potatoes roasted in the pan with beef or mutton are known to be palatable, but not very many American cooks know that onions, carrots and even cucumbers are equally as good cooked in this manner. Medium sized cucumbers are pared and salted and roasted with veal for half an hour. Carrots and onions are especially good with mutton.

To make a delicious tomato soup place a cupful of tomatoes over the fire to heat, adding a pinch of soda and a little water. When heated through strain carefully to remove every seed and add to one pint of boiling milk that has been thickened slightly with flour and butter rubbed together until smooth. Boil up once, season with salt and pepper and serve.

English toast is not so popular as it should be for a breakfast course. To prepare it, toast as many slices of bread as needed and keep warm. Separate as many eggs as there are slices, keeping the yolks without breaking. Beat the whites and shape a cup on each slice of toast, dropping a yolk into the centre. Set the pan of toast into the oven until the eggs are cooked, pour melted butter over, sprinkle with salt and pepper and serve hot. The toast should, of course, be buttered. And, by the way, making toast is a science many cooks have not learned. Most of it comes under the hardtack class.

You'll Find It Here.

Tomato juice will remove ink stains. For earache, warm some honey in a teaspoon and pour into the ear, then plug with cotton.

If you have not time to wash your hair, let it down in the evening and let the breeze dry it out.

Wiping the feet off in cold water every night and rinsing out the stockings at the same time will make you very comfortable for the next day's work.

A woman who marries for a home should not mind if she finds her husband has married for a housekeeper.

Remember you were young once, and don't be unsympathetic when your growing daughter tells you of her love troubles.

Those who have tried it say that a newspaper slipped inside the pillow case over the pillow will make a cool head rest during a hot night.

CRIMSON GENERAL.

Word has reached us that the noted champion Shorthorn bull, Crimson General, bred and owned until recently by A. F. McGill, Lacombe, has been sold to Mr. A. J. McArthur, Calgary.

As most of our readers are aware, Crimson General was champion at Edmonton and Calgary fairs three years. He is still only three years old, so he began early to make a name for himself, and has kept it up, never being beaten in his class, and only once when competing for championship.

He is a thick, low set, naturally heavy fleshed bull, and can be expected to continue giving an excellent account of himself in the hands of his new owner.



The CENTRAL CANADA INSURANCE COMPANY

HEAD OFFICE, BRANDON, MANITOBA.

Full Government Deposit
For the security of policy holders.

Licensed under "The Manitoba Insurance Act."
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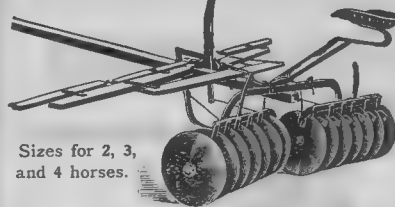
Fire Insurance Hail Insurance
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Geo. Tempest,
Agent, Calgary.

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Agents wanted where we are not already represented.

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Sizes for 2, 3,
and 4 horses.

Has made a great record throughout all Canada. There are good reasons why this is so. **Balanced Right**—Does not hump up. **Improved Plate**. Cuts and turns soil over. **Hitches well back**. Easy draught. This disk has several imitators but no equal. None genuine without the name "BISSELL."

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Sole agents for Western Provinces

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A post card will bring a small box for mailing; then we will report cost of repairs and if satisfactory to you we will repair it and return to you post paid. Your watch will receive very careful attention. All work guaranteed.

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CAPITAL AUTHORIZED	\$5,000,000
CAPITAL PAID-UP	4,825,000
REST	4,825,000

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Savings Department at each branch.

Interest allowed on Deposits of \$1.00 and upwards from date of opening account.

A. L. NUNNS, MANAGER

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on account of its peculiar advantages for Mixed Farming and the growing of Fall Wheat, is attracting many hundreds of desirable settlers. Centrally located, with an abundance of coal and wood, this is destined to become the Banner District of Central Alberta. Write us for descriptive pamphlet and list of lands for sale.

Michener and Carscallen

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HOMESTEADER : RANCHER : SPORTSMAN

Strong 12g Double Barrel Gun \$9.50; Fine Grade Baker Hammerless \$30
High Grade Trap and Game Guns \$50 to \$250
Rifles, Revolvers, Cartridges, Sporting Goods, Fishing Tackle

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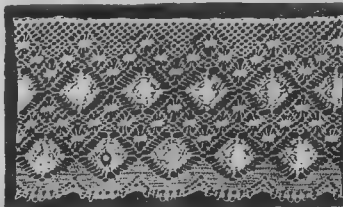
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NEW SURPRISE PACKAGE FANCY GOODS

ALL FOR 10 CENTS

To secure new customers and prove the big value we give we send you fifty beautiful Silk Remnants for fancy work, lovely colors, a fine assortment, also twelve yards Lace, package Embroidery Silk and pretty Gold-plated Ring with our big bargain list, **all for 10 cents**. Sure to please and surprise you. Address—

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THE J. C. RANCH
The home of the Clydesdales and Shorthorns
Pure-bred Mares and Fillies for Sale
MacCLURE (4018) (11125) at head of Stud
Shorthorn Cows and Heifers and Bulls for Sale
PRICES RIGHT
JOHN CLARK, Jr.
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A MUCH CONGRATULATED PAPER.

To have served its country and the public in general with disinterestedness and zeal for sixty-one years, to have behind it a record of stability and integrity reaching back to the early childhood of many of its oldest readers, this is an honor not possessed by many newspapers to-day, but is due to the Montreal "Witness," published by Messrs. John Dougall & Son, Montreal.

It must indeed be a source of gratification to the proprietors of this paper (which has been in the hands of the same family for the entire sixty-one years), that all through the past years its mails have been filled with letters from all classes and conditions from the Atlantic to the Pacific testifying most heartily to their high regard for the "Witness" and their admiration for its staunch adherence under all circumstances to the principles for which it has always stood.

Premiers, judges, lawyers, financiers, ministers of the Gospel of all denominations, have expressed their views frankly in letters that have been published in the "Witness" and have been seen and read, and, more than that, endorsed by many thousands throughout the Dominion. A large number of people in the adjoining republic and Great Britain and many of the finest men and women to-day are proud to boast:

"I was brought up on the Witness." As a sample of the congratulations received by the "Witness" during the past year, we give two that we noticed particularly reproduced in its columns. They need no introduction or comment from us:—

The Premier, The Hon. Sir Wilfrid Laurier, wrote:—"Personally, it has always been a source of high gratification to me when you have found it consistent with your own conception of public duty to support me in the different subjects of public policy with which I have to deal.

"On the other hand, whenever you differed from me, and thought me in the wrong, your criticisms derived all the greater force from my intimate conviction that they were inspired by that same sense of public duty."

Mr. R. L. Borden, K.C., M.P., the leader of the Opposition in the House of Commons, Ottawa, wrote, "The responsibilities of a public journal are not less than those of a public man. In fulfilling these, the 'Witness' has manifested, in an eminent degree, the qualities of courage and sincerity. Moreover, it has always aimed to uplift the standard of journalism in this country."

The "Witness" (Daily and Weekly) gives all the news that is worthy the attention of the average reader.

The "Witness" editorial pages are acknowledged by its readers on all sides to be both fair and forceful.

The "Witness" Financial Review and Market and Stock Reports are known throughout the Dominion for their reliability.

Other interesting departments, such as Literary Review, Legal, Medical, and General Queries; Boys' Page; Home Department; Agricultural Departments, etc., etc., are ably conducted by specialists at a large expense, offering a most valuable privilege to "Witness" readers.

The new-comer into our fair land makes no mistake when, in addition to his local paper, he subscribes for the "Montreal Witness," published by Messrs. Dougall & Son. Indeed such a step places him at once in line with the best and ablest in the Dominion.

The "Weekly Witness and Canadian Homestead" is only one dollar a year. The "Daily Witness" is three dollars.

A vigorous initiative and strong self-faith makes up the man of power.

CREAM IS MONEY
The chief reason you want a separator is to get more cream—more money—out of your milk. Of course you want to get the most, and you naturally want the separator that gets the most cream.

U.S. GETS ALL THE CREAM
Holds World's Record for CLEAN Skimming

Marshfield, Vt., Feb. 2, '07.
I bought one of the—machines, but after running it a little while I found it was not skimming clean. I had it tested at the creameries here and found it to test 1 per cent, and I could not stand this so exchanged it for one of the U. S. machines, and find that if I had given the other machine away I should have made money by so doing. I like the U. S. very much.

ALMON TUCKER.

The U. S. is also the simplest, strongest, safest separator. Only two parts in the bowl—easy to wash. Gears turn in oil and run surprising easy. Lasts for many years with ordinary care. Let us tell you ALL about it. It's money in your pocket right away to know. Just write, "Send me new Catalog No. 50." The pictures tell the story. FREE TO YOU. Write today, addressing the
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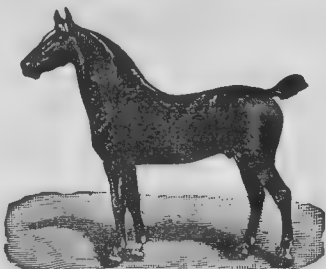
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**REMOVES
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SAFE FOR ANYONE TO USE.

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horsemen say of it. Price, \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

**The Accepted Standard
VETERINARY REMEDY**
Always Reliable. Sure in Results.



None genuine without the signature of
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Sole Importers & Proprietors for the U.S. & CANADA. CLEVELAND, O.

NOTHING BUT GOOD RESULTS.

Have used GOMBAULT'S CAUSTIC BALSAM for more than 20 years. It is the best blister I have ever tried. I have used it in hundreds of cases with best results. It is perfectly safe for the most inexperienced person to use. This is the largest breeding establishment of trotting horses in the world, and use your blister often.—W. H. RAYMOND, Prop. Belmont Park Stock Farm, Belmont Park, Mont.

USED 10 YEARS SUCCESSFULLY.

I have used GOMBAULT'S CAUSTIC BALSAM for ten years; have been very successful in curing curb rhinophony, capped hock and knee, bad ankles, rheumatism, and almost every cause of lameness in horses. Have a stable of forty head, mostly track and speedway horses, and certainly can recommend it.—G. C. CHAMBER, Training Stables, 990 Jennings Street, New York City.

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Clydesdale Stallions Prices from \$250 up

Twenty-five to select from Imported, as well as home bred, from a show horse to a range stallion; mares and fillies also for sale. Better selection than at any other breeding establishment in Canada. Several nice shorthorn females will be offered for sale. Prices defying competition. No commission men to be paid.

JOHN A. TURNER - **Box 472, Calgary**
Apply to
Balgarggan Stock Farm, 6 miles south of Calgary, 2 miles from Turner.

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FARM AND RANCH REVIEW

CURED HER BOY OF PNEUMONIA

**Newmarket Mother is loud in her
Praises of the Great Con-
sumption Preventative**

"My son Laurence was taken down with Pneumonia," says Mrs. A. O. Fisher, of Newmarket, Ont. "Two doctors attended him. He lay for three months almost like a dead child. His lungs became so swollen, his heart was pressed over to the right side. Altogether I think we paid \$140 to the doctors, and all the time he was getting worse. Then we commenced the Dr. Slocum treatment. The effect was wonderful. We saw a difference in two days. Our boy was soon strong and well."

Here is a positive proof that Psychine will cure Pneumonia. But why wait till Pneumonia comes. It always starts with a Cold. Cure the Cold and the Cold will never develop into Pneumonia, nor the Pneumonia into Consumption. The one sure way to clear out Cold, root and branch, and to build up the body so that the Cold won't come back is to use

PSYCHINE

(Pronounced Si-keen)

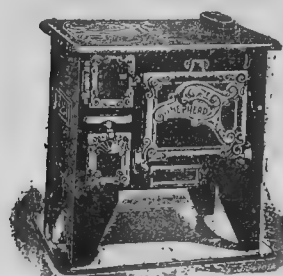
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Larger sizes \$1 and \$2—all druggists.
DR. T. A. SLOCUM, Limited, Toronto.

OUR NEW OFFER

Wonderful Reduction in Prices.

We offer the very best Stoves and Ranges at about half the price others ask. Thousands are taking advantage of our extremely low prices. Manufacturers and dealers everywhere wonder how we are able to make these phenomenal low prices and furnish the highest grade Stoves and Ranges. Our new catalogue explains all.

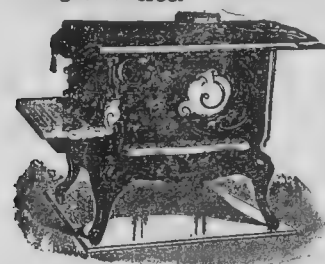
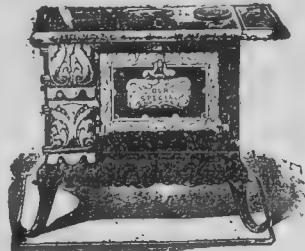


\$9.50 buys this new steel Cook. It has a heavy steel body, heavy top, covers and centers, an excellent firebox. Burns coal or wood. Has four 8-in. lids. A perfect steel cook that will stand hard service and give satisfaction.

Our new catalogue tells the rest. Send for it—it's free.

\$16.50

for our special Steel Cook. A handsome blue polished Steel body, asbestos lined, heavy fire box with duplex grate. Large 18-in. oven, four 9-in. lids, large top shelf with trimmings handsomely nicked, furnished with reservoir at a small extra charge. Illustrated in our new Stove Catalogue and details given. Write for our new Catalogue—it's free.



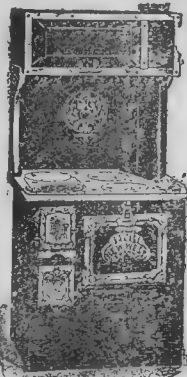
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buys the large Cast-iron Cook. Four 8-in. lids, 18-in. oven. It Burns coal or wood. A new construction, will give better results with

half the fuel the old cast stoves require. Large pouch feed. Heavy fire box. Thoroughly up-to-date in every respect, and a marvel at the price. Handsome nickel panels and oven shelf. This price means a saving of at least \$10.00. Can be furnished with reservoir at a slight additional charge. Our new Stove Catalogue will explain everything in detail. It will tell you of our wonderful stove offers. Show you where you can save \$5.00 to \$40.00 on every purchase.

This big full size four-hole **\$16.95**

New West steel range with steel high closet. Handsomely nickel plated, just as illustrated. A most wonderful value less than what your dealer must pay for the ordinary cheaply constructed range. Just the Range for the small family. Has all the advantages of the higher priced range, furnished with reservoir at a small extra charge. Our new stove catalogue tells you all about it and how you can save money by buying your stove and range from us at less than wholesale prices. Send for it now.



\$30



BUYS this Handsome Steel Range A MARVEL at the price, just as good and better than Ranges sold elsewhere at double OUR PRICE. Our Customers everywhere speak the highest praise for WINGOLD RANGES. A strong well made range. A perfect baker

and guaranteed to do the work required of a range, equal to any and last as long, and give perfect satisfaction in every respect.

THIS WINGOLD STEEL RANGE has six 8 inch lids; 18 inch oven, made of 16-gauge cold rolled steel; 15 gallon reservoir; large warming closet and high shelf; top cooking surface 30x24 inches; guaranteed to reach you in perfect order. Shipping weight 400 lbs. Burns wood or coal. A perfect baker—a fuel saver—our Catalogue will show you all sizes—write.

Stoves guaranteed, and 30 days' free trial given.

THE WINGOLD STOVE CO.

Dept. F. A. WINNIPEG, MAN.

A VALUABLE VETERINARY BOOK.

A little book which our readers have seen mentioned frequently in advertisements and in live stock discussions, called the "Zenoleum Veterinary Adviser," holds much that is of interest to farmers and stockmen, whether owners of few or many animals. It is valuable because it gives methods of treating along lines of the commonest troubles that all classes of live stock are heir to. The book is carefully indexed, and was designed primarily to show the relation of the celebrated Zenoleum Animal Dip and Disinfectant to domestic husbandry economy. Zenoleum has come to be a very popular thing among owners of live stock in every state in the Union, in Canada, and also foreign countries. Its standing among high authorities appears from the fact that forty-two agricultural colleges unhesitatingly give it their recommendation.

The Zenoleum Veterinary Adviser shows in their own words, just what the professors and various directors connected with these institutions have said of it, and the suggestions they offer for its use. The most important fact is that the book is more conclusive than merely stating the uses of Zenoleum. It gives many descriptions of diseases and ailments, their causes and symptoms, etc., that could hardly be had in such compact and reliable form in any other book we can now call to mind. There are sixty-four pages, splendidly printed in large readable type, and well bound in a serviceable cover.

This book can be had free by any reader of this paper by writing to the Zenner Disinfectant Company, 52 Lafayette Avenue, Detroit, Mich., for it.

We believe readers who send for it will have cause to be gratified that we have called this matter to their attention. Take our advice and send for it right away.

DEATH OF NOTED CLYDESDALE.

Just after last issue left the press word reached us of the death of that great show and breeding horse Baron's Gem (imp.), owned by Messrs. Taber & Traynor, of Condie, Sask. His death is a great loss, not alone to his owners, but in a broader sense to the Clydesdale interests of Canada, for he had proved to be one of the best sires Canada has ever had. He was eight years old, was sired by Baron's Pride, dam by MacMeekan, and was imported by John A. Turner, Calgary, in 1903, for Messrs. A. & G. Mutch, Lumsden, Sask. While in Mutch Bros. hands he did excellent stud service, and numbers of his progeny have been winners at the leading fairs in the hands of Mutch Bros and others. This season in the hands of R. H. Taber he won the grand championship at Winnipeg for the best draft stallion on the grounds, and Eva's Gem, one of his get, won the female championship. Baron's Craigie, a son of his, in the hands of John A. Turner, won first as a yearling, and several others of his get won seconds at this leading Western fair, being beaten only by the pick from some of Scotland's best studs. Case after case could be cited where he or his progeny have won the highest honors at leading fairs, and what is even better, these winners have the combined qualities of being excellent breeders as well. Truly he was a noble horse, and it is to be hoped that although difficult, Messrs. Taber & Traynor will be fortunate enough to secure another that will continue breeding equal to Baron's Gem.

The heart is bankrupt when it has no love to spare.

Love men and they will love you. It's persuasion in itself, even as the violin voices the soul of the master.



Your best Horse may strain his Shoulder or Fetlock tomorrow

Get a bottle of FELLOWS' LEEMING'S ESSENCE today.

Fellows' Leeming's Essence acts like magic. It draws out all the soreness and stiffness from strains, sprains and bruises—and limbers up the joints. One application usually cures ordinary lameness—and two rubbings fix the horse all right.

It does horses so much good right at the start that they can be put to work a few hours after the Essence has been applied.

Accidents are liable to happen at any time. Be ready for them.

Get a bottle of Fellows' Leeming's Essence today. 50c. a bottle. At all dealers or from the

NATIONAL DRUG & CHEMICAL CO., LIMITED, MONTREAL

The Right Way

In all cases of
DISTEMPER, PINKEYE, INFLUENZA, COLDS, ETC.,

of all horses, broodmares, colts, stallions, is to

"SPOHN THEM"

on their tongues or in the feed put Spohn's Liquid Compound. Give the remedy to all of them. It acts on the blood and glands. It routs the disease by expelling the disease germs. It wards off the trouble no matter how they are "exposed." Absolutely free from anything injurious. A child can safely take it. 50c and \$1.00; \$5.50 and \$11.00 the dozen. Sold by druggists and harness dealers. Special Agents Wanted.

Distributors: **BOLE DRUG CO.,** Calgary and Winnipeg.

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Chemists and Bacteriologists, Goshen, Ind., U.S.A.



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Bone Spavin, Ringbone, Splint, Blood and Bog Spavin, Thoroughpin, Curb, Capped Hock, especially if of long standing and obstinate—will not yield to ordinary liniments or blisters.

KENDALL'S SPAVIN CURE is an extraordinary remedy that gives extraordinary results. It cures old, stubborn cases that many times veterinarians have given up—takes away every sign of lameness—does not scar or kill the hair—and leaves the horse sound and smooth.

BENITO, Man, Sept. '06

"I have used Kendall's Spavin Cure for 20 years—and it never failed me once." **JOHN MCKENNA.**

Write for noted book "Treatise On The Horse"—something worth knowing on every page. Sent free. Kendall's Spavin Cure is sold by dealers everywhere at \$1. a bottle—6 for \$5.

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Four miles east from De Winton on the Calgary and Macleod Railway. This is a most desirable property situated in a district that has proved so successful for cropping and stock raising and is conceded to be one of the very best in Alberta. All enclosed and sub-divided with good wire fences. 160 acres under cultivation. A meadow from which 200 tons hay is put up per annum. The property is watered by never failing natural flowing springs, open summer and winter. A new up-to-date \$2500 House. Horse stable 70 x 18. Cattle stable 39 x 18. Extensive close boarded courts and corrals for stock. These farm offices are all frame buildings in first-class condition having been erected within the last few years. Anyone on the lookout for a profitable farm will be well advised to look at this property. Price, including improvements, \$20 per acre. Terms Cash or half at time of purchase and balance at 8 per cent. Telephone connection within easy reach.

BRYCE WRIGHT, De Winton, Alta.



ABSORBINE

will reduce inflamed, swollen Joints, Bruises, Soft Bunches, Cure Boils, Fistula, or any unhealthy sore quickly; pleasant to use; does not blister under bandage or remove the hair, and you can work the horse. \$2.00 per bottle, express prepaid. Book 7-C free.

ABSORBINE, JR., for mankind, \$1.00 per bottle. Cures Varicose Veins, Varicocele, Hydrocele, Strains, Bruises, stops Pain and Inflammation.

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Twenty young Bulls from 10 to 20 months old. Also a few females. 150 head to choose from.

T. W. ROBSON,
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SHORTHORNS FOR SALE

Bulls, one three-year-old, seven two-year-olds and five yearlings. Also a few cows and heifers.

Breeding and prices right.

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Western Canada's Pioneer Herd. Headed by Soham's "King Improver" (37748). Grand Young Bulls, Cows, Heifers for Sale. Also Pony Vehicles, Harness and Saddles.

Write for Catalogue.

J. E. MARPLES, Deleau, Man.

Shipping Stations: Hartney and Deleau.

Dairy Herd For Sale

Consisting of Pure Bred Ayrshires and Ayrshire grades all of which have been selected with special regard to quality and abundance of milk. A number of young Ayrshire Bulls and a few Yorkshire Swine also for sale.

J. C. POPE, Regina, Sask.

LARGE ENGLISH BERKSHIRES

The kind that weigh 200 pounds at six months old. Some fine Spring Pigs now ready to ship. I send out nothing but well grown thrifty pigs for the butcher is glad to get the culls.

LEW HUTCHINSON Box 101, Duhamel, Alta.
Bittern Lake Station

THE DEAD ONE.

Breathes there a man with soul so dead,

Who never to himself hath said:

"My trade of late is getting bad,
I'll try another ten-inch ad?"

If such there be go mark him well;

For him no bank account shall swell—

No angels watch the golden stair,

To welcome home the millionaire.

The man who never asks for trade

By local line or ad. displayed.

Cares more for rest than worldly gain,

And patronage but gives him pain.

Tread lightly, friends; let no rude

sound

Disturb his solitude profound;

Here let him rest in calm repose,

Unthought except by men he owes.

And when he dies go plant him deep

That naught may break his dreamless

sleep,

Where no rude clamor may dispel

That quiet that he loved so well.

And that the world may know its loss

Place on his grave a wreath of moss

And on the stone above, "Here lies

A man who did not advertise."

CREDIT WHERE CREDIT IS DUE.

In our report of the prize winners of the Regina Fair, we inadvertently stated that Robt. Sinton won first in agricultural brood mare section. This prize we find was won by Mr. Robt. A. Napper, Regina, and we gladly make the correction. We did not happen to be at the ring side when the section in question was judged, yet considered that the information given us was accurate, but since find out such was not so.

SEPTEMBER CANADIAN PICTORIAL.

A Canadian girl sitting at the end of a pier jutting out into one of the great lakes, her head silhouetted against the setting sun, which touches the dancing water with its slanting rays—this is the cover picture of the September Canadian Pictorial, the monthly which, though only in its second year, announces that there is a surprise in store next month, as it is to be enlarged considerably. In the series of distinguished Canadians, the public man chosen for this month is Sir Louis Jette, Lieutenant-Governor of Quebec, and Lady Jette's picture appears in the woman's section. The result of the photographic competition is announced, the sovereign going to Ontario, and the prize picture is reproduced with several "honorable mentions." The important happenings of the month are illustrated: the explosion at Essex, Ont.; the fire at Old Orchard, in which half the summer hotels were destroyed and thousands of guests rendered temporarily homeless; the pilgrim Doukhobors in Winnipeg; the annual outing of the Canadian Alpine Club; the birthday of Professor Goldwin Smith. There are two pages of summer scenes in the country, and by the lakeshore that will interest everybody. The women's department includes a sketch of the work of the W.C.T.U., the Dominion convention of which is to be held this month in Winnipeg, with articles on autumnal fashions, care of the teeth, and other timely topics. Ten cents a copy; one dollar a year postpaid, the world over. The Pictorial Publishing Co., 142 St. Peter street, Montreal.

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CLYDESDALES AND SHORTHORNS

Stallions and mares of excellent breeding, of all ages for sale; also some choice young bulls fit for service, and a number of cows and heifers of noted Scotch strains.

Many of them Leading Prize Winners at the Big Western Fairs

P. M. BREDT, Regina, Sask.



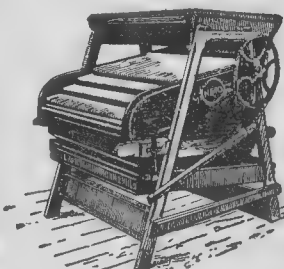
HEREFORDS

Heifers and Bulls by Imported Albert and a few grand imported Cows, also some fine young things by the famous Champion Bull in England "Happy Christmas." Herd has been very successful in ring at Winnipeg, Brandon, etc., and if you want some good animals at right prices

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FARM and RANCH REVIEW CALGARY ALBERTA

USE CARNEFAC STOCK FOOD

FOR THAT THIN HORSE

FLOWERS AND SMALL FRUIT TREES.

A. E. McKenzie & Co. had at the Brandon Fair a very excellent exhibit of flowers, ornamental shrubs, small fruit trees, grasses, clovers, and seeds of all kinds suitable for western farms and gardens. This firm are working up an excellent trade by giving general satisfaction to their rapidly increasing list of patrons.

THE BAD HABIT OF EXAGGERATION.

Exaggeration is simply a dressy form of untruthfulness.

Very often as much harm is done by exaggerating a fact as by actually telling an untruth.

It is all a matter of habit and can be cured if one takes the trouble to try hard enough.

The trouble is that with some people the cold fact never seems big enough, they must enlarge on it.

Hundreds become thousands, inches become yards under their skilful manipulation. They feel that they cannot impress people unless they can make a big story.

In reality, people soon grow to place no trust in the stories told by the exaggerator.

If he tells them he has met a perfectly beautiful girl they know she is moderately pretty, and so forth.

His stories are of no virtue, because they cannot be relied on.

There is no characteristic more contemptible than that of telling untruths.

A small lie is just as bad as a big one. Some people seem constitutionally unable to tell the truth. They lie on all occasions, even when they have nothing to gain by it.

One reason for this is that they cannot bear not to know everything. No matter what you tell them, they will always have had similar experiences.

They boast of knowing people whom they have never met.

They tell marvellous tales of experiences they have never gone through.

And they never seem to imagine that there is a limit to the credulity of their listeners.

Don't get the habit of telling petty untruths. It is a horrid habit and can't help but have its effect on your character.

Don't go about thrusting unpleasant truths about your friends before you are asked your opinions, but when you are asked, tell the truth.

If you are given to exaggeration, try and cure yourself. Learn to give plain facts without distortion.

It is a fine thing to establish a reputation for truthfulness and reliability.

Don't for a moment imagine that because it harms no one a lie is excusable. It harms you, even if no one else is affected by it.

One little lie can work up a great tangle of deceit. It grows like a snowball, and the first thing you know you are fathoms deep in deception.

Stick to the truth in big and little things, and remember that "a lie that is half the truth is ever the blackest of lies."

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To look over this land and make your selection. We will be pleased to show you over any farm. If we cannot suit you it is not necessary for you to buy.

Write for our map and price list free.

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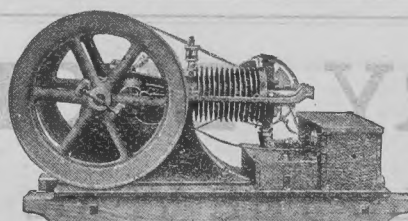
The Live Line for the Dealer. Air-Cooled Sizes: 1, 1½, 2½, 5½ h.p. Water-Cooled Sizes: 2, 3¼, 4½, 6, 7, 8, 12, 15 h.p.

Our Net Prices will surprise you.

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Our calculations are based strictly on net cash in advance. Samples of these papers may be seen at this office.

Boiled Breast of Chicken—After the chicken has been cleaned, singed and wiped, remove the breast portion, reserving the remainder for broth or cooking in other ways. Lay the breast, which has been removed from the bone, on a piece of pure white letter paper that has been well buttered. Fold the paper so as to enclose the chicken in a case, then place in a wire broiler, and broil ten minutes over a bed of clear coals. You will need to take care that the paper does not catch fire. Remove from the case, season with salt and pepper, and add a little more butter. Place on a slice of toast, garnish with a thin slice or two of lemon, and parsley.

Egg Nog.—There is a right and a wrong way, or a good and a better way, of making even so simple a drink as an egg nog. The following is one of the better methods: Beat the yolk of an egg, add one tablespoonful of sugar, a few grains of salt, and a little more than two-thirds of a cup of

sweet milk. Strain, then add the beaten white of the egg, and a sprinkling of grated nutmeg if it is liked. Stir well before serving. Sometimes albumenized milk is ordered, instead of the egg nog. To prepare it, break the white of an egg into a tumbler, add a half or two-thirds of a cup of milk, cover the tumbler, and shake the contents until they are thoroughly mixed.

The worst a problem can be is difficult. Every perplexing problem can be solved as surely as two and two are four—some way, some where.

I have noticed that intellectual giants are financial pigmies. The man whose head is in the clouds is too far removed to have his hands in the dirt.

There is an irresistible fascination in the life devoted to letters. The path of the literary genius is paved with bones. Few there are who turn their faces to the hills beyond the desert that ever live to cross it.

Makes Prize Butter

Who ever heard of Cana-la's prize butter makers using imported salt? They all rely on

Windsor Salt

because they know that it dissolves quickly—works in easily—and gives a delightful flavor to the butter. Windsor Salt is pure—and costs no more than the cheap imported salts.

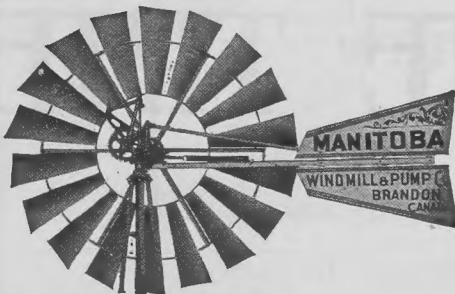
If you want the best butter, you must use the best salt. That means Windsor Salt.

183W

THE GREAT BIG QUESTION OF POWER ON THE FARM

Let us tell you all about it and the

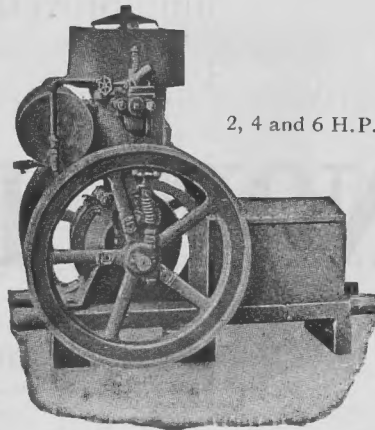
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ONLY \$27.50 'OUR LEADER' STEEL RANGE

is a wonder in value, a genuine up-to-date 1907 Model Steel Range, fully guaranteed by us to give entire satisfaction in every way. Just as good a Range as many dealers sell at double the price. A splendid heater and a perfect baker, an ornament to the kitchen and the pride of the housekeeper, a really handsome Range that anyone might be proud of, and just think for only \$27.50 this Range is yours, just about the price others ask for an ordinary cook stove. "Our Leader" Steel Range is made from 16 gauge Cold Roll Steel, and has six 8-inch lids; 18-inch oven, 15-gallon reservoir, and large high shelf warming closet. The top cooking surface is 30 x 34 inches. The Range complete, crated for shipping, weighs 400 lbs., and we guarantee it to reach you in perfect order. If you have any use for a Steel Range, or if you are contemplating buying a stove or Steel Range, do not buy a stove from any other dealer until you have first tried "Our Leader" Range. Just write us your nearest shipping point and we will tell you just what the freight will cost you on this Range. Send us only \$27.50 and we will ship you "Our Leader" high grade Steel Range, take it to your home, set it up and use it for a month, for, after all, that is the only way to judge the value of a stove or range, then after you given it a fair trial and put it to the most severe test that you might expect ever to put it to, and if you are not fully satisfied with the results it has given, and you think it is not worth many dollars more than we ask, send it back to us, and we will return the price in full which you paid, together with whatever freight charges you have paid. Is this not the most exceptional offer you have ever heard of for a strictly high grade Steel Range, complete 15-gallon Reservoir and High Shelf warming Closet, black japanned finish. Price, only \$27.50. Or we will supply the same Range in full nickel trimmings for \$33.00. If you would prefer a larger range we recommend our "BEAUTY RANGE," a most handsome high grade Steel Range, with full nickel-plated trimmings, at only \$39.50. Catalogue Free.

The MACDONALD MAIL ORDER, Limited

Department 6 WINNIPEG, CANADA

HOTEL DIRECTORY

Only hotels which experience enables us to recommend to our friends are advertised in the FARM AND RANCH REVIEW. For convenience of our patrons the list is alphabetically arranged.

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BUS MEETS ALL TRAINS
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J. A. S. MACMILLAN
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CALGARY, ALTA.

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Opposite C.P.R. Gardens

American Plan \$2 and \$2.50. Opened in February only, now known throughout the Dominion.

C. TRAUNWEISER, Proprietor JAS. RUTLEY, Manager

EDMONTON, ALTA.

QUEEN'S HOTEL

Rates \$2.00 and \$1.50 per day. Newly furnished throughout. Every convenience. Free Bus meets all trains.

MRS. B. HETU, Proprietress

WETASKIWIN, ALTA.

PRINCE OF WALES HOTEL

Under new management. Excellent service. Close to the depot.

West Michigan Farms

OCEANA is the most productive county in the state. Fruit, grain, clover, alfalfa, potatoes, stock, poultry. \$10, \$20, \$30 to \$50 per acre; will produce double cost first year. All sizes, easy terms. Send for list. J. D. S. HANSON, Hart, Mich.

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History is but the record of a few masterful spirits working in the midst of a mass of incompetent people.

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